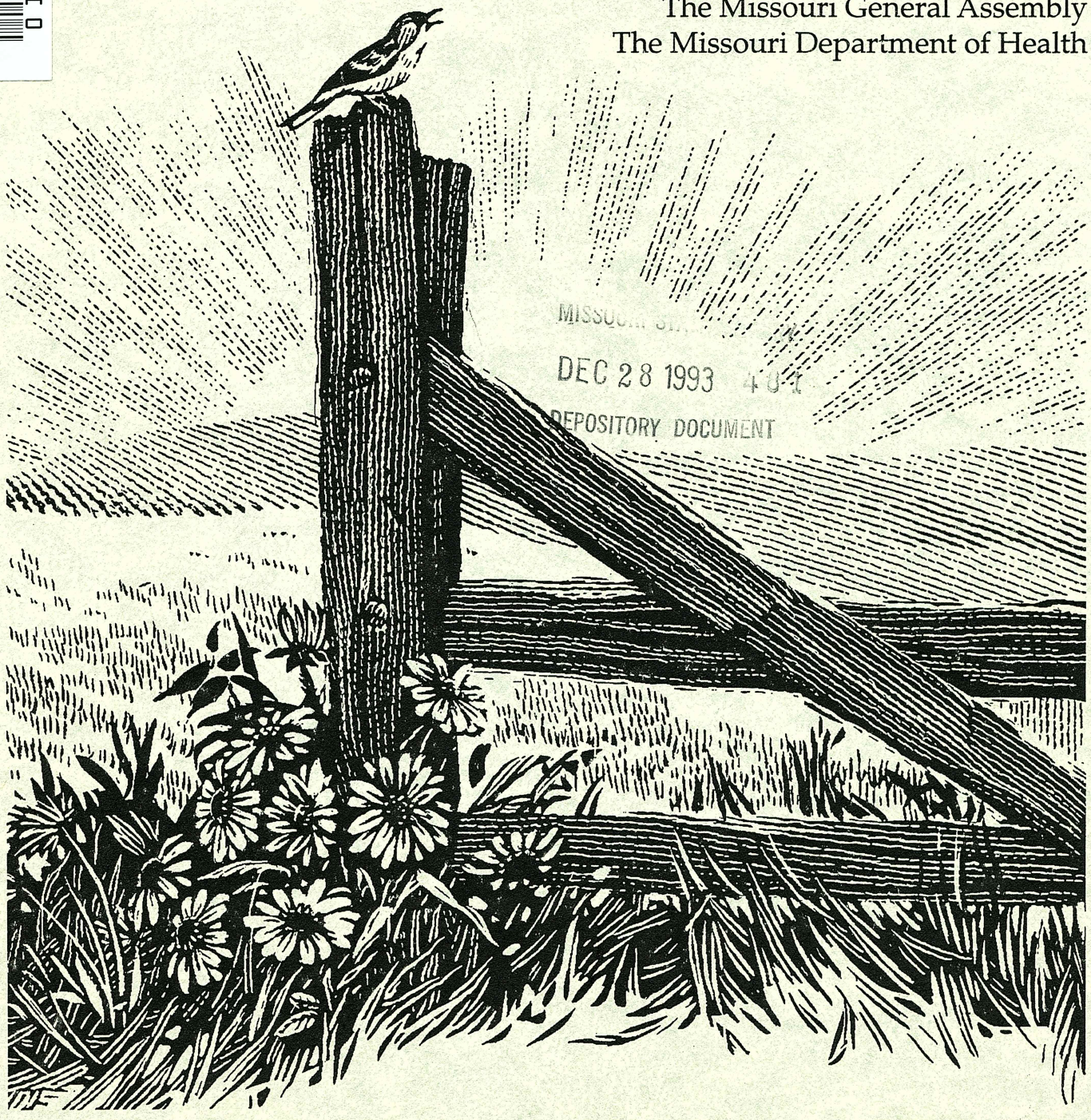
Health Care in Rural Missouri

Report to
Gov. Mel Carnahan
The Missouri General Assembly
The Missouri Department of Health



Presented by Missouri Office of Rural Health Advisory Commission • October 1993

TO IMPROVE AVAILABILITY OF HEALTH CARE IN RURAL MISSOURI

Report to
Governor Mel Carnahan
The Missouri General Assembly
The Missouri Department of Health

Presented by the
Missouri Office of Rural Health Advisory Commission

Jefferson City, Missouri
October, 1993

State of Missouri
Department of Health
Office of Rural Health Advisory Commission
P.O. Box 570
Jefferson City, Missouri 65102
314/751-6219 • FAX 314/751-5350

Mel Carnahan
Governor

Coleen Kivlahan, M.D., M.S.P.H.
Director
Department of Health

KATHLEEN (KATIE) STEELE

"As the movement for health care reform advances at the national and state levels, rural Missourians must not be left out or left behind."

The Missouri Office of Rural Health Advisory Commission was created by the 1990 Missouri General Assembly. The Commission consists of eighteen members, fourteen appointed by the Governor and two each by the Speaker of the House of Representatives and the President Pro Tem of the Senate. Charged under the statute to "provide technical and professional consultation regarding the delivery of rural health care services," the Commission advises the Governor, Missouri General Assembly, Missouri Department of Health, and other agencies on issues related to rural health care. The Commission has completed the enclosed document which delineates specific recommendations for improving the availability of health care in rural Missouri.

These recommendations require the support, resources and cooperative efforts of Governor Carnahan, the Missouri General Assembly, Department of Health and a consortium of public and private agencies and organizations. Only through this collaborative and cooperative effort can rural Missourians be assured that basic health care services are accessible, available, affordable, of acceptable quality and culturally appropriate for all.

Sincerely,

Kathleen F. Steele

Representative Kathleen Steele
Chair
Office of Rural Health Advisory Commission

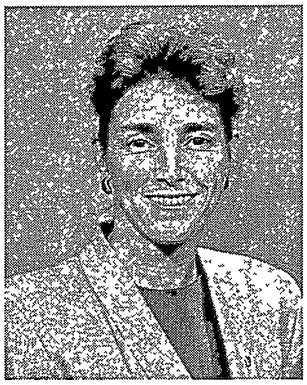
KS/KK:cs

MISSOURI DEPARTMENT OF HEALTH

Mel Carnahan
Governor

Coleen Kivlahan, M.D., M.S.P.H.
Director

P.O. Box 570, Jefferson City, MO 65102-0570 • 314-751-6400 • FAX 314-751-6010



COLEEN KIVLAHAN, M.D.

"We must focus on improving the availability of high quality health care for rural Missourians."

On behalf of the Department of Health, I wish to express my heartfelt thanks to the members of the Office of Rural Health Advisory Commission for their tireless efforts that made the completion of this report possible. I wholeheartedly concur that we must focus on "...improving the availability of high quality health care for rural Missourians. Improving health care in rural areas will require an increase in the number of health care providers of all types and at all levels, with special emphasis on providers of primary care."

Enhanced access to primary and preventive health care and the elimination of disparities in health status between minority populations and the general public are the major goals of the Department of Health. The Department has identified a significant deficiency in primary care service delivery systems and infrastructure supporting primary health care systems in rural areas.

I would like to join you in your call for action. If the recommendations of this report are able to be implemented by the Missouri State Legislature and Governor Carnahan, it will be a significant step in assuring that high quality health care is available to all rural Missourians.

Your dedication and commitment to the people of Missouri as exemplified by your efforts to improve Missouri's health care delivery system is greatly appreciated.

Sincerely,

Coleen Kivlahan, M.D.
Director

CK/KK:cs

TABLE OF CONTENTS

INTRODUCTION

"The future prospect for rural health care in the absence of intervention is grim."[1] With these words, the Office of Technology Assessment of the United States Congress encapsulates a problem faced by rural populations in Missouri and across the United States—the decreasing availability of quality health care in rural areas. To solve this problem, the State of Missouri must act quickly and effectively. In this report, the Missouri Office of Rural Health Advisory Commission recommends actions which we believe must be taken to safeguard the health and welfare of the more than 1.7 million individuals who live in rural Missouri.

This interim report is the first issued by the Commission and includes recommendations which it considers of the highest priority at this time. Recognizing the need for fiscal responsibility, we have endeavored to assure that most of the recommendations contained in this report can be implemented without major increases in state expenditures. In addition, many of the recommendations can be implemented by contracting with existing agencies or organizations.

The focus of this report is on improving the availability of high quality health care for rural Missourians. Future reports will deal with additional issues and bring additional recommendations for the improvement of rural health care.

Improving availability of health care in rural areas will require an increase in the number of health care providers of all types and at all levels, with special emphasis on providers of primary care. Such improvement will also require a team approach to health care using the combined and complimentary strengths and skills of all rural health care providers. Critical shortages of health care providers plague rural Missouri. Without immediate effective action, these shortages will grow worse. Trends such as the decreasing production of primary care physicians, increasing disparity in income levels between rural primary care providers and urban/specialty providers, and siphoning of practitioners from rural areas to more lucrative managed care and specialty practices in the urban areas will, if not reversed, doom Missouri's rural population to being perpetually medically underserved.

The time is right for action. As the movement for health care reform advances at the national and state levels, the health care needs of rural Missourians must be included. The Missouri Office of Rural Health Advisory Commission urges Governor Carnahan, the Missouri General Assembly, and all state and local agencies to implement the recommendations in this report as a significant step in assuring that high quality health care is available to all Missourians.

BACKGROUND

The Missouri Office of Rural Health Advisory Commission was created by the 1990 Missouri General Assembly (RSMo 192.064, 1992). The Commission consists of eighteen members, fourteen appointed by the Governor and two each by the Speaker of the House of Representatives and the President Pro Tem of the Senate. A list of Commission members is attached to this report as Appendix A. Charged under the statute to "provide technical and professional consultation regarding the delivery of rural health care services," the Commission advises the Governor, Missouri General Assembly, Missouri Department of Health, and other agencies on issues related to rural health care.[2]

The Commission held its first meeting on November 5, 1991 and has met quarterly since that time. During its meetings, the Commission has received oral and written reports from state agencies,

private and professional organizations, and consumer groups regarding the status of health care delivery in rural Missouri. In addition, the Commission has reviewed numerous published reports on rural health care in the United States and Missouri, including the 1979 report of the Missouri Governor's Task Force on Rural Health to then-Governor Joseph P. Teasdale. A complete list of the reports received and reviewed by the Commission is attached to this report as Appendix B.

Throughout its deliberations, the Commission has been assisted by input from a group of expert task forces on maternal and child health, rural youth health, rural elderly health, agricultural safety and health, rural health personnel, rural transportation, and health care delivery, coordination and management. Initially convened by the Missouri Rural Innovation Institute in response to its 1990 satellite conference on rural health issues, the task forces have provided the Commission with data, analysis, and recommendations which have formed the basis for much of this interim report. While the Commission has not formally endorsed each and every recommendation made by the task forces, we believe they merit serious consideration as the discussion of rural health issues continues. We plan to address many of the specific task force recommendations in our future deliberations and reports. Executive summaries of the task force reports are found in Appendix C. The full text of each task force report will be printed in a companion volume to this Commission report.

GUIDING PRINCIPLES

Improvements in health care for rural Missouri must be based on a set of principles. Such principles will establish the standard to which the current rural health care system can be compared and from which appropriate remedial steps can be developed. The Commission's deliberations and recommendations are informed and guided by the following principles. We believe these principles must also guide the State of Missouri as it addresses the health care needs of all its citizens:

> Health care must be accessible, available, affordable, of acceptable quality, and culturally appropriate for all Missourians regardless of their resources.
>
> Basic health care must consist of a set of services which provide a continuum of care throughout the life cycle and address all stages of physical and mental health.
>
> This set of services must include:
>
> * health education
> * disease prevention
> * health promotion
> * preventive and early intervention services
> * clinical preventive services
> * epidemiologic screening appropriate to age
> * environmental health screening
> * prenatal care
> * emergency care
> * primary, acute, and chronic health care
> * dental care
> * mental health evaluation
> * psychosocial rehabilitation[3]

Definitions of each of these services are contained in the glossary presented in Appendix D.

SPECIFIC RECOMMENDATIONS

In order to make available to all citizens of rural Missouri a health care delivery system which satisfies the guiding principles enunciated above, the Commission recommends that the Governor, Missouri General Assembly, Missouri Department of Health, public and private agencies and organizations, and individuals cooperatively accomplish the following goals and actions. The order of presentation of these goals and recommended actions does not imply a priority ranking—we have included in this report only our high priority recommendations and believe each should be considered equally important. To succeed in assuring availability of health care in its rural areas, Missouri must:

establish and support an infrastructure which facilitates the delivery of high quality basic health care to all rural Missourians;

improve the practice environment for rural health care professionals in Missouri;

develop and support a coordinated statewide system of recruitment and education programs which produces the health care providers needed to make high quality basic health care available in rural Missouri; and

develop and support programs and services focusing on disease prevention and health promotion among rural Missourians.

To achieve these goals, we believe the following specific actions must be taken without delay.

Goal: Establish and support an infrastructure which facilitates the delivery of high quality basic health care to all rural Missourians.

Office of Rural Health

1. The Missouri General Assembly, with the support of the Governor, should appropriate sufficient funds and authorize a sufficient number of positions for the Office of Rural Health in the Department of Health to enable that office to provide leadership in improvement of rural health care delivery, coordinate the activities of agencies and organizations involved in rural health care improvement, and assume the lead role in implementing the Commission's recommendations.

2. The Office of Rural Health should be prominently located within the Department of Health, preferably in the Office of the Director.

3. The Office of Rural Health should be authorized, directed, and funded to periodically assess the health care resources of all Missouri counties and communities, identify areas with inadequate resources using established national and state standards, and develop and submit to the Governor and General Assembly a strategic plan and recommendations for correcting identified inadequacies.

Professional Regulation

4. The Missouri General Assembly and Governor should enact legislation revising the statutes governing the practice of medicine and nursing to authorize and support col-

laborative practice involving physicians, advanced practice nurses, and physician assistants as appropriate to each individual's training and scope of practice.

5. The Missouri Department of Economic Development should revise its regulations requiring supervised counseling experience for licensing as a professional counselor and supervised clinical experience for licensing as a clinical social worker to allow supervision to occur less frequently with greater duration of contact and, where feasible, via telecommunications media which allow face-to-face interaction, as well as in other modes which recognize the realities of time and distance involved in mental health practice in rural areas. The Department should institute a continuing review of all professional licensing and certifying requirements and procedures to assure that appropriate flexibility is available to accommodate the realities of rural practice.

Managed Care

6. The Governor and Missouri General Assembly should enact standards which assure that any program of managed care authorized, funded, or mandated by the State of Missouri will support and encourage the presence of necessary basic health care providers, services and facilities in rural areas of Missouri. Managed care services serving a rural community should, to the extent possible, be controlled by local health care providers in cooperation with the communities to be served. The State of Missouri, through the Departments of Health, Insurance, and Economic Development, should provide technical assistance to interested local providers in developing and operating innovative and effective locally controlled rural managed care systems. The Office of Rural Health should be the contact point for and facilitator of these interdepartmental efforts on behalf of organizations and communities wishing to explore or implement such innovative models of managed care in rural areas.

Transportation Infrastructure

7. The Governor should designate the Missouri Highway and Transportation Department to, in collaboration with the Office of Rural Health, nurture and coordinate federal, state and local transportation activities supporting the delivery of health care services in rural Missouri.

8. The Governor should establish an interagency working group to develop a plan and recommendations for statewide networking and coordination of public and private transportation to support access to and availability of health care services in rural Missouri. The working group should be comprised of representatives from the Missouri Departments of Highways and Transportation, Social Services, Mental Health, Elementary and Secondary Education, Health, plus the Office of Rural Health and other appropriate agencies.

9. The Missouri General Assembly and state agencies should examine current regulations governing school districts, churches, and other non-profit agencies and revise such regulations as necessary to allow these entities to enter into contracts and cooperative agreements to use their transportation resources, as available, for non-emergency transportation of individuals to health care facilities and providers' offices. In support of such dual use of transportation resources, the General Assembly should establish an insurance risk-sharing pool to make affordable insurance coverage available to school districts, churches, and other non-profit

entities who provide, as a secondary mission, non-emergency transportation to health care services in rural areas.

10. The Missouri General Assembly should provide increased funding for the Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP) for Fiscal Year 1994 and future years to expand the availability of transportation to health care services in rural areas.

11. The Missouri General Assembly should appropriate sufficient funds and authorize sufficient personnel to the Department of Social Services to implement and monitor a non-emergency medical transportation program which can provide necessary transportation to all Medicaid eligible clients in rural Missouri to whom other modes of transportation are not available.

Goal: Improve the practice environment for rural health care professionals in Missouri.

Reimbursement for Health Care Services

12. The Governor and Missouri General Assembly, in collaboration with public and private agencies and organizations in Missouri, should petition the United States Congress and Department of Health and Human Services to revise the funding formulas for the Medicare program to provide a uniform and equal reimbursement for each health care service regardless of whether it is delivered by an urban or rural health care provider.

13. The Missouri Medicaid program's reimbursement schedule should be revised to provide increased or "bonus" payments for services rendered by physicians, advanced practice nurses, and physician assistants practicing in rural health professional shortage areas designated by the United States Public Health Service or Missouri Office of Rural Health.

14. The policies of the Medicare and Medicaid programs should be revised to permit licensed mental health professionals (i.e., licensed psychologists, professional counselors, clinical social workers, and certified psychiatric nurse specialists) to be certified as providers and receive reimbursement for services rendered which are within their scope of training and licensed practice.

Malpractice Liability Reform

15. The Governor and Missouri General Assembly should enact malpractice liability reform (tort reform) to reduce the disincentives to the practice of rural primary care present in the current system. In these efforts, special emphasis should be placed on reducing the disincentives affecting the delivery of obstetrical services by physicians and other health care providers in rural areas.

Innovative Rural Health Care Facilities

16. The Governor should establish a working group to develop recommendations for modifications in federal and state regulations and financial policies necessary to maintain the viability of rural community-based health care facilities (e.g., hospitals, community health centers, rural health clinics, local health departments, etc.) in meeting the health care needs of rural Missouri. The working group should be composed of individuals from the Missouri General Assembly, Department of Health, Department of Social Services, Missouri Hospital Association, and other public and private agencies and organizations. Included in their recommended modifications should be added flexibility allowing the licensing and reimbursement of facilities providing variable levels of inpatient acute care services, multi-purpose facilities for physical and mental health care, non-traditional community-based managed care consortia, and other innovative facilities which, while not meeting the traditional definitions of a health care facility, provide health care services specific to the needs of a rural community.

Support Services to Rural Health Professionals

17. The Office of Rural Health should be authorized, directed, and provided sufficient funding to establish a program or contract for services to make available locum tenens support to rural health care professionals, including but not limited to physicians. The cost of the locum tenens program, once established, should be met through collections for health care provided by the locum tenens provider or fees charged to the health care professional receiving the locum tenens support.

18. The Office of Rural Health should be authorized, directed, and provided sufficient funding to establish a program or contract for services to provide assistance to and training of rural health care professionals and their office staffs in effective business management practices.

Goal: Develop and support a coordinated statewide system of recruitment and education programs which produces the health care providers needed to provide high quality basic health care in rural Missouri.

Recruitment of Health Professionals and Faculty

19. The Office of Rural Health should coordinate the health care professional recruitment activities of all public and private agencies and organizations to assure an effective, non-duplicative statewide effort to recruit needed health professionals to practice in Missouri's rural counties and communities. The Office of Rural Health should also assist Missouri schools and programs educating health care professionals, particularly those schools and programs based in rural and medically underserved areas, in recruiting and retaining qualified faculty.

Coordination and Cooperation of Educational Programs

20. Recognizing that health care providers trained in community-based education programs tend to establish and maintain practices in settings similar to those in which they are trained, the Missouri General Assembly should appropriate funds to support

and expand the Missouri Rural Area Health Education Centers Program (MRAHEC) linking health professions schools and education programs with rural communities. Using these and other resources, the MRAHEC should continue to develop and support community-based education programs which recruit, educate and retain needed health care professionals for practice in rural Missouri.

Missouri Health Service Corps

21. The Missouri General Assembly and Governor should enact legislation creating and funding a Missouri Health Service Corps (MHSC) to be implemented by the Department of Health. The MHSC should solicit and combine funds from federal and state governments, communities, businesses, and other public and private sources to provide scholarships and loan repayment guarantees to health care professions students in return for a commitment to serve a specified period of time providing primary health care in a state or federally designated underserved area in Missouri. Funds should be available to students in vocational-technical, undergraduate, and graduate-professional level programs, so long as there is a designated shortage of the profession involved in the area in which the student agrees to serve upon graduation.

Loan and Loan Repayment Programs

22. To assist primary care physicians and nurses to decrease their educational debt load and increase their incentive to practice in rural and medically underserved areas, the Missouri General Assembly should provide increased funding for the medical school loan and medical student loan repayment programs, the professional and practical nursing student loan program, and the nursing student loan repayment program. In addition, the General Assembly should authorize and fund similar programs to provide loan and loan repayment support to other health professions students and health professionals (e.g., physician assistants, speech pathologists, occupational therapists, physical therapists, social workers, professional psychologists and counselors) who will practice in areas of defined need designated by the Department of Health. Priority in each of these programs should be given to individuals who, following completion of their education, provide primary care in rural and medically underserved areas.

23. The Department of Health should establish and publicize regulations which identify local health departments, school districts, correctional facilities, home health care agencies, and mental health facilities in underserved areas as equally acceptable loan repayment and service obligation sites as are medical clinics and hospitals in those areas.

24. The Missouri General Assembly should assure that all legislation establishing health professions loan and loan repayment programs includes the requirement that all funds received through loan repayments, fines or forfeitures called for by program legislation or regulations be returned to the loan fund to make additional loans or repayment guarantees.

Support for Postgraduate Medical Education

25. The Missouri General Assembly should provide sufficient funding of the assistance program for family practice residencies and general rotating internships which lead to a primary care residency to allow the Department of Health to provide support to all existing approved programs for the purpose of increasing the amount of rural clinical experience provided to residents and interns. In addition, funds should be provided to assist the initiation of new primary care residency or primary care tracking internship programs or sites in areas of need designated by the Department of Health.

Health Professions Education and Student Recruitment

26. Health professions schools and educational programs should establish a rural admissions track to recruit and admit increased numbers of students who are from non-metropolitan counties and are interested in providing primary care in rural Missouri. Special consideration should be given to these students in admission and each school and program should reserve an appropriate number of positions in each class for qualified students on the rural admission track.

27. The Office of Rural Health, in collaboration with the Department of Elementary and Secondary Education, health professions schools and programs, the Missouri Rural AHEC Program, and other public and private agencies and organizations, should develop and implement special health careers information and preparatory programs for rural elementary and high school students. These programs and materials should acquaint rural students with the range of opportunities in the health professions and the educational requirements for those professions. In addition, special programs should be developed and implemented to assist economically and educationally disadvantaged rural students become more competitive for admission to health professions education programs by strengthening their skills in curriculum content areas and program application/admission interview procedures.

28. All health professions schools and education programs in Missouri should actively develop courses and educational programs using, to the greatest extent possible, distance learning technologies for delivery of initial and continuing education in the health professions to individuals and groups in rural Missouri.

Goal: Develop and support programs and services focusing on disease prevention and health promotion among rural Missourians.

School Health Services

29. The Missouri General Assembly and Governor should enact legislation requiring and adequately funding comprehensive school health programs including school health instruction, school-linked health services, physical education, school food service, and school counseling and mental health services in all rural school districts. Recommended curricula for school health instruction programs should be developed jointly by the Department of Health and Department of Elementary and Secondary Education. Funding support should come from an appropriate mix of state aids through a restructuring of the school aid formula and a portion of the Missouri Medicaid program's Healthy Children and Youth Program (EPSDT).

30. The Missouri General Assembly should authorize, direct, and provide sufficient funds to the Department of Elementary and Secondary Education to require and assure that at least part-time services of a registered nurse are consistently available in every Missouri school. In addition, the General Assembly should authorize, direct, and provide sufficient funding to the Department to require and assure that a licensed social worker is consistently available to assist students and families in each school district in Missouri.

CONCLUSION

As indicated in the above recommendations, the complex problems facing rural Missourians in their efforts to obtain high quality health care require complex and wide ranging solutions. These solutions will require the support, resources, and cooperative efforts of the Governor, Missouri General Assembly, Department of Health, and a wide variety of governmental, public and private agencies and organizations. With such support, resources, and cooperative efforts, rural Missourians can be assured that basic health care services will be accessible, available, affordable, of acceptable quality, and culturally appropriate for all.

REFERENCES

1. U.S. Congress, Office of Technology Assessment, Health Care in Rural America, OTA-H-434 (Washington, DC: U.S. Government Printing Office, September, 1990), page 8.

2. Section 192.606, Revised Statutes of Missouri (1990).

3. Missouri Office of Rural Health Advisory Commission "Guiding Principles of the Missouri Office of Rural Health Advisory Commission," adopted February 4, 1993.

ACKNOWLEDGEMENTS

In addition to those groups and individuals whose contributions are noted in the body and appendices of this report, the Commission wishes to express its appreciation to:

The Department of Health, especially the Bureau of Primary Care and Office of Rural Health for the staff and resources provided to assist the Commission.

The University of Missouri Extension program, especially the Missouri Rural Innovation Institute, for support of task force activities in support of the Commission and operation of the Rural Health Information Clearinghouse.

The Missouri Rural Area Health Education Centers Program for providing staff services to the Commission and writing and editorial assistance in the production of this report.

APPENDIX A

MEMBERSHIP

OFFICE OF RURAL HEALTH ADVISORY COMMISSION

AND

TASK FORCE CHAIRS

MISSOURI RURAL HEALTH COALITION INITIATIVE

MISSOURI OFFICE OF RURAL HEALTH ADVISORY COMMISSION

The Honorable Harold Caskey
Missouri Senate
Butler, MO

The Honorable Doyle Childers
Missouri House of Representatives
Reeds Spring, MO

Sandra Clarkson, R.N.
Chariton County Health Department
Keytesville, MO

Jack M. Colwill, M.D.
Family and Community Medicine
School of Medicine
University of Missouri
Columbia, MO

Glen C. Davis, M.S.
Breech Medical Center
Lebanon, MO

Jim DeLine, M.D.
Macon, MO

Claudette Jensen, R.N.
Bates County Health Center
Butler, MO

Lawrence I. Kahn, M.D.
School of Medicine
Washington University
St. Louis, MO

Michael M. Karl, M.D.
School of Medicine
Washington University
St. Louis, MO

Joanne Mermelstein, Ph.D.
School of Social Work
University of Missouri
Columbia, MO

Joseph M. Meystrik, R.N., M.S.
St. Johns Regional Health Center
Springfield, MO

Helen E. Miner, R.N., Ph.D.
Division of Nursing
S.E. Missouri State University
Cape Girardeau, MO

Arlene Moomaw, M.S., Vice-Chair
Family Medicine of the Ozarks
Springfield, MO

Margie E. Peltier
Kansas City, MO

The Honorable John Russell
Missouri Senate
Lebanon, MO

Frank J. Siano, M.S.
HealthLine Management, Inc.
St. Louis, MO

The Honorable Kathleen Steele, Chair
Missouri House of Representatives
Kirksville, MO

Fred C. Tinning, Ph.D.
Kirksville College of Osteopathic Medicine
Kirksville, MO

MISSOURI RURAL HEALTH COALITION INITIATIVE
TASK FORCE CHAIRS

Mary Simon Leuci
Missouri Rural Innovation Institute
University of Missouri Extension
Columbia, MO

Burton Halpert, Ph.D.
University of Missouri—Kansas City
Kansas City, MO

Alan Welles, M.P.A.
Bureau of Primary Care
Missouri Department of Health
Jefferson City, MO

Alice Kuehn, R.N., F.N.P., Ph.D.
Co-Chair, Rural Elderly Task Force
University of Missouri School of Nursing
Columbia, MO

Robert Daugherty, Chair
Health Care Development, Coordination
and Management Task Force
Health Services Management Group
University of Missouri
Columbia, MO

Anne Deaton, Ph.D., Co-Chair
Rural Elderly Task Force
University of Missouri
Columbia, MO

Michael French, Co-Chair
Health Personnel Task Force
Missouri Rural Area Health
Education Centers
Kirksville College of Osteopathic Medicine
Kirksville, MO

Mary Kaye Doyle, R.N., Co-Chair
Rural Youth Health Task Force
Missouri Department of Health
Jefferson City, MO

Kay Libbus, R.N., Ph.D., Chair
Maternal/Child Health Task Force
University of Missouri School of Nursing
Columbia, MO

Richard Oliver, Ph.D., Co-Chair
Health Personnel Task Force
School of Health Related Professions
University of Missouri
Columbia, MO

Larry Sims, Chair
Transportation Task Force
Missouri Highway & Transportation Dept.
Jefferson City, MO

David Baker, Ph.D., Chair
Farm Health and Safety Task Force
Agricultural Engineering Extension
University of Missouri
Columbia, MO

Gail Carlson, M.P.H., Ph.D., Co-Chair
Rural Youth Health Task Force
University of Missouri
Columbia, MO

APPENDIX B

REPORTS RECEIVED AND REVIEWED BY THE COMMISSION

REPORTS RECEIVED AND REVIEWED BY THE COMMISSION

Speakers and Presentations

NOTE: When speakers addressed the Commission on more than one occasion, only the first appearance is indicated.

November 15, 1991

The Honorable James Mathewson
President Pro-Tem
Missouri Senate

The Honorable Bob Griffin
Speaker
Missouri House of Representatives

John R. Bagby, Ph.D., Director
Missouri Department of Health

Kathleen Wojciehowski, General Counsel
Missouri Department of Health

Pam Walker
Office of Governmental Relations
Missouri Department of Health

Phil Brunner, Director
Division of Injury Prevention, Head Injury
Rehabilitation and Local Health Services
Missouri Department of Health

Alan Welles, Chief
Bureau of Primary Care
Missouri Department of Health

Jackie White
Division of Maternal, Child and Family Health
Missouri Department of Health

Janet A. Head, Co-Director
Missouri Rural Area Health Education Centers Program
Kirksville College of Osteopathic Medicine

Jim Preston, Director
Missouri Rural Innovation Institute
University of Missouri Extension

Mary Simon Leuci
Missouri Rural Innovation Institute
University of Missouri Extension

February 13, 1992

Robert Daugherty, Executive Director
Health Services Management Group
University of Missouri—Columbia

May 21, 1992

Richard Oliver, Ph.D., Director
School of Health Related Professions
University of Missouri—Columbia

Mary Kaye Doyle, R.N.
Bureau of Community Health Nursing
Missouri Department of Health

Daryl Hobbs, Ph.D., Director
Office of Social and Economic Data Analysis
University of Missouri Extension

Harold Kirbey
Bureau of Primary Care
Missouri Department of Health

Benjamin Pettus, Executive Director
Missouri Coalition for Primary Health Care

Keith Schafer, Ed.D., Director
Missouri Department of Mental Health

Mary Johnson-Gerard, Ph.D., Chief
Office of Disabilities Prevention
Missouri Department of Health

Mary Lou Gillilan, R.N., M.S.N.
Division of Injury Prevention, Head Injury
Rehabilitation and Local Health Services
Missouri Department of Health

Donna Checkett, Director
Division of Medical Services
Missouri Department of Social Services

Dwight Fine
Missouri Hospital Association

David Barbe, M.D.
Missouri State Medical Association

Belinda Heimericks, R.N., M.S.N.
Executive Director
Missouri Nurses Association

Gail Carlson, M.P.H., Ph.D.
Health Education Specialist
University of Missouri Extension

Larry Sims
Missouri Highway and Transportation Department

Alice Kuehn, R.N., F.N.P., Ph.D.
School of Nursing
University of Missouri—Columbia

February 4, 1993

Judith Widdicombe
Health Policy Institute
St. Louis, MO

Robert Finley
Agricultural Economics Department
University of Missouri—Columbia

March 24, 1993

Coleen Kivlahan, M.D., Director
Missouri Department of Health

Brenda Hinton
Missouri Rural Innovation Institute
University of Missouri Extension

Documents and Reports

Summary of structure and services of the Missouri Department of Health, no date given.

"Services to Children," Missouri Department of Health, no date given.

"Recommendations from the Governor's Task Force on Rural Health to Governor Joseph P. Teasdale," Governor's Task Force, January 1976.

"Summary and Vision Statements," Branson Legislative Conference on Health Care, 1990.

"Midwest Health Policy and Planning Association Regional Conference Report," Missouri Department of Health, April 1986.

"Missouri Indigent Health Care Study," Missouri General Assembly, April 1986.

"The Changing State Role in Indigent Health Care," Missouri Department of Health, June 1986.

"Health Leader Summit Meeting Summary," Missouri Department of Health, October 1986.

"Strategic Plan for the Year 2000," Missouri Department of Health, January 1987.

"Needs/Demands Assessment," Missouri Department of Health, February 1988.

"Health Alliance '87 Workbook," Missouri Department of Health, November 1987.

"The Crisis Facing Northeast Missouri Health Care Systems and the Kirksville College of Osteopathic Medicine," Kirksville College of Osteopathic Medicine, January 1988.

"My Vision for Rural Health in the 1990's," C. Everett Koop, M.D., Sc.D., May 1990.

"The Impact of Healthier Lifestyles on Business and Industry," Missouri Department of Health, no date given.

"Missouri's Changing Health Care System," Missouri Department of Health, no date given.

"Health Care in Rural America," Congress of the United States, Office of Technology Assessment, September 1990.

"Missouri Rural Health: A Vision and a Challenge," Missouri Rural Innovation Institute, October 1990.

"Rural Hospitals—Federal Leadership and Targeted Programs Needed," United States General Accounting Office/Human Resources Division, June 1990.

"Healthy America: Practitioners for 2005," The Pew Health Professions Commission, October 1991.

"Draft Life Cycle Report," Personal Health Services Subcommittee, Task Force II on Local Health Services, Missouri Department of Health, October 1991.

"Goals and Objectives: Missouri Office of Prevention of Disability," no date given.

"Nursing's Agenda for Health Care Reform," American Nurses Association, February 1992.

"Statement on Health Care Reform," Association of State and Territorial Health Officials, May 1992.

"Resolution of Health Care Benefits Package," Midwest Legislative Conference of the Council of State Governments, July 1992.

"Health Access America—Second Edition," American Medical Association, July 1992.

"Universal Insurance for American Health Care," American College of Physicians, July 1992.

"Improving Access to Health Care Through Physician Workforce Reform: Directions for the 21st Century," Council on Graduate Medical Education, October 1992.

"Healthy Missourians 2000," Missouri Department of Health, November 1992.

"Rural Health: Successfully Meeting the Challenge—Preliminary Satellite Seminar Report," Missouri Rural Innovation Institute, November 1992.

"Public Transportation: A Plan for the Future," Missouri Highway and Transportation Department, December 1992.

"Transition Briefing on Mental Health," Mental Health Liaison Group, January 1993.

APPENDIX C

TASK FORCE REPORT EXECUTIVE SUMMARIES

MISSOURI RURAL HEALTH COALITION INITIATIVE

REPORT AND RECOMMENDATIONS
MATERNAL AND CHILD HEALTH TASK FORCE
OF THE
MISSOURI RURAL HEALTH COALITION
INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

In December, 1991, an infant born three months prematurely was being discharged after many weeks in the hospital to go home to northwest Missouri from the University of Missouri Hospital. It took a neonatal nurse four hours to locate a physician in the area who was willing to take over the care of this infant. The physician who finally consented to take the case was located 60 miles from the family's home. Although other resources were closer, these physicians refused to accept the referral, presumably because this family received Medicaid.

INTRODUCTION

Increasing numbers of mothers, infants, and children in Missouri currently encounter multiple barriers in obtaining access to primary, essential health care. These stumbling blocks are particularly acute in the rural areas of Missouri.

In 1989, the rate of inadequate prenatal care was 17.6% in Missouri as a whole. According the Missouri Department of Health (MDOH, 1990) in many rural Missouri counties, 24% to 38% of pregnant women had inadequate or no prenatal care at all. The Missouri Perinatal Association (MPA, 1990) reports that infants born to women who do not receive prenatal care are three times more likely to be low birth weight. The primary cause of low birth weight is preterm birth, defined as birth occurring before 37 weeks of gestation.

Low birth weight, a major cause of infant death, has remained stagnant in Missouri over the past few years, at a rate of approximately 7% (MDOH, 1990). Low birth weight newborns (under 5.5 pounds) are more than 40 times more likely to die and very low birth weight newborns (under 3 pounds) more than 200 times more likely to die than normal weight infants (MPA, 1990).

In 1990, 79,135 babies were born in Missouri. Of these, 746 died before their first birthday (MPA, 1990). Missouri rates an alarming 31st in the United States in infant mortality with a rate of 9.9 infant deaths per 1,000 live births. This rate is congruent with national figures which places the United States behind such countries as Iceland, Taiwan, Malta and Singapore in infant death.

Significant disparity exists between racial groups in Missouri regarding these indicators of maternal and child health. Twice as many infants of minority races die during their first year of life. This phenomenon is also seen for rates of inadequate prenatal care and low birth weight. For example, pregnant women of color have a rate of inadequate prenatal care of almost 35% statewide.

The issue of cost cannot be ignored. The average cost for prenatal care is $500 per pregnancy. For each dollar spent for prenatal care, it is estimated that at least three dollars can be saved in the care of sick or premature newborns (MPA, 1990). One hundred thousand times that amount might be required for lifetime treatment of disabilities sustained as a result of preterm birth. Further the emotional costs are immeasurable.

The members of this task force, as well as other individuals and state groups, are dedicated to pursuing appropriate health care for mothers and children. We encourage an official statewide commitment, accompanied by adequate funding, to address and eliminate barriers to basic maternal-child health care in rural Missouri. We know from decades of experience what is required to reduce infant mortality. This is not a health problem—but rather a "social problem with health consequences" (Wagner, 1991, p. 3). Missourians can reduce our infant mortality by half if we choose to do so.

STANDARDS FOR MATERNAL-CHILD HEALTH SERVICES

Prenatal Care

Optimal standards for prenatal care are based on the recommendations of the American College of Obstetricians and Gynecologists (1992). These standards represent what is considered the gold standard necessary to enhance pregnancy outcomes in a normal 40-week pregnancy. The standards recommend a preconception visit to determine health status and emotional readiness for childbearing in both partners before pregnancy occurs. After conception, prenatal care should begin as soon as the pregnancy is verified, preferably during the first three months; the woman is then seen by the health care provider monthly until 28 weeks, bimonthly until 36 weeks, and then weekly until delivery for a total of 14-16 visits.

The core of prenatal care must be initial and ongoing risk assessment. Identification of high-risk maternity patients is crucial to prevent or reduce problems in mothers and infants. It is estimated that the potential for poor pregnancy outcomes can be identified 80% of the time during this period (American College of Obstetricians and Gynecologists, 1992). Careful and thorough risk assessment with early problem identification is sanctioned by all groups concerned with enhancing maternal-child health. A federal Expert Panel on the Content of Prenatal Care (1989) endorses the importance of extensive risk assessment for every maternity patient.

The dual concepts of risk assessment and health promotion also form the basis of the American Academy of Pediatrics (AAP) recommendations for routine health supervision of children and youth (MDOH, 1990). The AAP guidelines suggest 13 well-child visits with an appropriate provider from birth through age six and 15 visits up to age 11. A recent federal mandate expanded Medicaid coverage to all young children under a specified poverty line. As a result each state must offer all eligible children Early Periodic Screening, Detection, and Treatment (EPSDT) according to a plan determined by each state's Medicaid program (Wagner, Herdman, & Alberts, 1989). In Missouri, EPSDT includes financially eligible children from birth through age four.

During each child health visit, immunization status should be evaluated and immunizations administered as needed, per state guidelines. During its short history, immunization has proved to be an extremely cost-effective method of saving lives and lowering health care costs and improving the quality of life. Routine childhood immunizations include protection against diphtheria, tetanus, whooping cough, polio, measles, mumps, rubella, and most recently, Haemophilus influenza, an organism which causes many childhood illnesses including one kind of meningitis (Wagner, et al., 1989). A recent report from the Centers for Disease Control (November 22, 1991) recommends routine immunization of infants for Hepatitis B. However, this particular recommendation has not yet been included in the Missouri State Recommendations. Further, it is important to note that an estimated 20 to 25% of all two-year old children in the United States have not received recommended immunizations.

The health of mothers and children is a vital concern in both state and nation. Health care that begins prior to conception must continue beyond delivery and throughout childhood. A multidisciplinary, collaborative approach is encouraged to promote continuity, as well as to ensure comprehensive care.

EXISTING RESOURCES

The following information about Missouri's child health care resources came from primarily the Department of Health. Information was requested from all six of the public health district offices in Missouri as well as the Bureau of Community Health Nursing. Southeastern, Northeastern, and Eastern districts are summarized below. The remaining three public health districts were provided by Nancy Hoffman, R.N.,C. from Jefferson City, Missouri.

Southeastern District health educator, Kathy Garner, provided information through a compilation for the Department of Health. Most of the counties that do not have the child health conferences are Stoddard County and Howell County. Howell County is also the only county without a public health department. Ozark Medical Center gives that county's immunizations as well as their prenatal care. Stoddard County does have immunizations in their clinic, as well as WIC.

The Northeastern District information was provided by Joan Schlanker, R.N., at the Northeastern District Health Office and covers 21 counties in northeastern Missouri. In northeast Missouri, services are available either through the area health department or accessed through a clinic or another health department. Every one of the 21 counties in northeast Missouri does provide child health conferences. Family planning (or access to planning) is also provided except in Knox, Mercer, Monroe, and Schuyler counties. The counties that have no available prenatal care are Knox, Monroe, Ralls, Saline, and Schuyler.

The Eastern District information was provided by Blanca Domingorena, R.N., Community Health Nurse. She provided information for Jefferson, Franklin, St. Louis and St. Charles counties, as well as St. Louis City. These areas were very well covered with the exception of Franklin County where they have no STD education or treatment. St. Charles also has limited STD information. Adequate resources seem to be available within most of the three state areas whose public health office responded to our inquiry. But that is not the total picture. Some of the other factors that relate to the public use of these resources are:

- Hours of the clinics: Are they conducive for working parents?
- Transportation: Are they in an easy-access location? Is there a problem getting to and from the clinic?
- Public perceptions: Is there a preconceived notion of who is permitted to use these clinics? Is it known that care is available to all? Is there a perceived criteria that must be met before care can be received at these clinics?

There is no central information area where individuals can find out what is available in each area regarding questions like—Are employers willing to work with working parents to best utilize the clinics' services and timeframes? The total picture involves not just the resources that are available, but the mechanisms for getting people and resources together.

Two services in Missouri that are making a difference are Parents-As-First Teachers and the Women, Infant and Children Supplemental Food Program. Every school district in Missouri is required to have a Parents-As-First Teachers Program and every county except one in Missouri offers the Food Program. *The St. Louis Post-Dispatch*, on April 13, 1992, included an article entitled "Prenatal Care, Birth Weight Remains a Worry." Two thoughts in this article are relevant here. The article stated that one reason for the lack of improvement in prenatal care was that "few doctors treat Medicaid recipients or uninsured

women. We clearly need more obstetrical capacity for poor women," said William Kincaid, M.D., director of Health and Hospitals in St. Louis. "It is not a question of giving the insurance, which we've done. It is also a question of giving them access...One positive finding in this study is poor women who get food vouchers through Women, Infant and Children Supplemental Food Program will be more likely than others to get adequate prenatal care."

REGULATORY BARRIERS

"Nurse practitioners (and nurse midwives) can make positive contribution to the health care system...They enhance patient access services, decrease costs and provide a broader range of services. Certain consumers prefer the non-physician provider" (Graduate Medical Education National Advisory Committee, 1981). The use of mid-level practitioners such as nurse practitioners (NPs) and physician assistants (PAs) to provide care usually given only by physicians developed in the 1960s as a response to physicians. At the same time, certified nurse-midwives (CNMs), who had a 30-year history of care provision, began to increase in substantial numbers.

Nurse practitioners typically function under protocols that are collaboratively written with physicians. Evaluation indicates that these mid-level providers, within their areas of competence, provide care that is as safe and effective as that provided by physicians. Further, federal reimbursement, specifically for certified nurses in advanced practice, is available through Medicare, Medicaid, CHAMPUS (Civilian Health and Medical Program of the Uniformed Services), and FEHB (Federal Employee Health Benefit Program) (American Nurses Association, 1991). Unfortunately, numerous obstacles, such as nonsupportive physicians, and restrictive state statutes, thwart the type and amount of care provided by the nurse practitioners (Conway-Welch, 1991; Office of Technology Assessment, 1986; Wagner, 1991).

Rural Missourians currently receive a significant amount of care from nurse practitioners. For example:

> Rural health clinics currently opening in the Springfield—Branson and Hannibal areas are being developed and staffed by Master's prepared certified nurse practitioners.
>
> In a three-county rural area (St. Charles, Warren, and Lincoln), a nurse is providing primary care to indigent residents. Three area physicians accept referrals as needed.
>
> A significant amount of prenatal care is provided to Missouri low-income women in county health department prenatal clinics operating under protocol.
>
> In the southwest Ozark area, a nurse practitioner is providing well-baby clinics in three counties.

In recent years, however, the State Board of Registration for the Healing Arts has taken disciplinary action against a number of physicians who have authorized nurses to perform specific duties under protocol, particularly those protocols related to the delivery or prescription of medication. This type of activity, perceived by some as harassment, discourages collaborative practice and can seriously jeopardize access to health care services throughout the state, particularly in rural areas.

Another proposed legal hurdle comes from SB 849, a recently filed major revision of the Medical Art Practice Act. This revision states that 11 standing orders and protocols being used, regardless of the practice setting, must be submitted to the Missouri Board of Regis-

tration for the Healing Arts for their review and approval. The practice of qualified nurses providing care under standing orders and protocols has been upheld by the Missouri Supreme Court (Sermchief v. Gonzales, 1983). Continued harassment by the Board of Healing Arts will severely obstruct qualified medical and nursing providers in their ability to provide needed well-child examinations, immunization, and prenatal care services to rural population (Heimericks, 1991).

The Board of Pharmacy has advised pharmacists to ascertain if a physician is on site before a medication order from a nurse practitioner. This stipulation creates particular problems in rural settings where a physician is not always present. Of interest is the fact that although pharmacists are prohibited from taking these orders from a trained and registered health professional, they have not been advised to question orders called in by non-licensed office staff in a physician's practice setting.

RECOMMENDATIONS

Based on analysis of available information, as well as extensive discussion, this task force offers the following recommendations to the Missouri Office of Rural Health Advisory Commission. We believe that the promotion and support for the suggested measures will do much to increase the volume and enhance the quality of maternal and child health services in Missouri (National Commission, 1988). This list should not be viewed as comprehensive, but rather, as a bare minimum of actions necessary to improve the health status of rural women and children.

1. Surveys and structured interviews should be used to systematically identify barriers to maternal and child care specific to Missouri.

2. A system of central-linked data should be made available to health policy makers and health providers (e.g., information regarding immunizations, prenatal care, etc.).

3. Mandated comprehensive health education curricula should be developed for all public schools. These curricula must include mandatory family life education. Development should be a joint effort between the Department of Health and the Department of Elementary and Secondary Education.

4. The governor should be advised by ORHAC to identify geographic areas with high rates of infant mortality and declare them Infant Mortality Disaster Areas.

5. The State of Missouri should encourage and expand the use of certified nurse midwives and nurse practitioners. Appropriate legislation should be promulgated to enable their professional practice.

6. The use of mobile clinics is encouraged to facilitate increased access to care for those many rural residents with time and transportation constraints.

7. Reliable information regarding local services available to pregnant women and children should consistently be provided in grocery stores, pharmacies, other retail stores, and churches.

8. There must be establishment and/or expansion of training programs for those health providers who customarily practice in rural areas, e.g., nurse practitioners and certified nurse midwives.

Reference List

American College of Obstetricians and Gynecologists/American Academy of Pediatrics (1992) Guidelines for Perinatal Care (3rd ed.) Washington, DC: Author.

Centers for Disease Control (November 22, 1991) Hepatitis B. Virus: A comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. Morbidity and Mortality Weekly Report, 40, RR-13, 1-25.

Conway-Welch, C. (1991) Issues surrounding the distribution and utilization of nurse non-physician providers in rural American. The Journal of Rural Health, 7(4 Supplement), 388-401.

Expert Panel on the Content of Prenatal Care (1989). Caring for Our Future: The Content of Prenatal Care. Washington, DC: Public Health Service.

Graduate Medical Education National Advisory Committee (1981). Report of the Graduate Medical Education National Advisory Committee. Volume 6 Non-Physician Health Care Provider Technical Panel. (DHHS Publication No. HRS 0-9-00-88-1) Washington, DC: Government Printing Office.

Heimericks, B. (1991) Executive Summary Missouri Nurse, 61, (2)4.

Missouri Department of Health (1990) Child Health Conference Guidelines, FY 1991. Jefferson City, MO: Author.

Missouri Department of Health and State Center for Health Statistics (August 1990). Missouri Maternal and Infant Health Status Indicators (MCHS Publication No. 6.8) Jefferson City: Author.

Missouri Perinatal Association (1990) Our Children, Our Future (pamphlet) Jefferson City: Author.

National Commission to Prevent Infant Mortality (1988). Death before life: The tragedy of infant mortality. Washington, DC: Author.

Office of Technology Assessment (December, 1986). Nurse Practitioners, Physician Assistant, and Certified Nurse Midwives (Health Technology Case Study 37). Washington, DC: Congress of the United States.

Wagner, J.L., Herdman, R.C., & Alberts, D.W. (1989) Well-child Care: How much is enough? Health Affairs, 8(3), 147-157.

Wagner, M. (1991) Maternal and Child Health Services in the United States. Journal of Public Health Policy, 12(4), 443-449.

Maternal and Child Health Task Force Members

M. Kay Libbus, Chair
S311 Nursing School Bldg., UMC
Columbia, MO 65211
(314)882-0285

A. Gelene Adkins
S312 Nursing School Bldg., UMC
Columbia, MO 65211
(314)882-0283

Connie Casey
Oak Hill Hospital
932 East 34th Street
Joplin, MO 64804
(417)623-4640

Deborah Clay
MO Rural Area Health Educ. Center
800 West Jefferson
Kirksville, MO 63501
(816)626-2887

Jim DeLine, M.D.
1101 North Jackson
Macon, MO 63552
(816)385-3141

Kathy Ellsworth
SE District Health Office
2875 James Blvd.
Poplar Bluff, MO 63901
(314)785-9633

Mary Engram
109 N. First
Charleston, MO 63834
(314)683-6129

Sharon Feltman
1136 St. Christopher
Columbia, MO 65203
(314)443-6937

Krystal Metzelthim
St. John's Regional Health Center
1235 E. Cherokee Street
Springfield, MO 65804-2263
(417)885-3235

Jeanne Morrison
162-8 Stanley Hall, UMC
Columbia, MO 65211
(314)882-4071

Carla Patton
Barnes Hospital
One Barnes Hospital Plaza
St. Louis, MO 63110
(314)362-5000

Sue Scott
University Hospital & Clinics
One Hospital Drive
Columbia, MO 65211
(314)882-2656

Heather Stephens
Chariton County Health Dept.
Hwy. 24, Box 216
Keytesville, MO 65261
(816)288-3675

Karen Sutton
St. Mary's Health Center
6420 Clayton Road
St. Louis, MO 63117
(314)768-8000

Janie Vestal, M.D.
SW District Health Office
P.O. Box 777
Springfield, MO 65801
(417)888-4000

Janet Head, Co-Director
Missouri Rural AHEC
800 West Jefferson
Kirksville, MO 63501
(816)626-2887

REPORT AND RECOMMENDATIONS

YOUTH HEALTH TASK FORCE

OF THE

MISSOURI RURAL HEALTH COALITION

INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

Introduction

Childhood and adolescence are critical times for healthy human development. The vulnerability of youth places them at special risk for preventable problems including unintentional injuries, homicide, abuse and neglect, and environmental hazards such as air pollution and water contamination. Attitudes and behaviors developed during these early years related to diet, exercise, consequences that continue across their life span. In addition, without adequate adult nurturing, guidance, and supervision, youth are at risk of developmental problems which can also affect them throughout their lives.

Health-Related Needs of Youth

The Youth Health Task Force has defined the health-related needs of youth to include age appropriate education and prevention programs, early identification and screening services and access to needed mental health and medical care. This report will focus specifically on the health-related concerns and needs of youth ages 6 through 21. Based on 1990 census data, youth comprise 23% of Missouri's population—663,853 children ages 6 to 14 and 512,386 adolescents ages 15 to 21. The majority of youth live in the counties surrounding Kansas City and St. Louis and in a strip of counties from Columbia down through Branson.

The health profile of Missouri's youth has changed significantly during the 1900's. Threats from infectious diseases such as polio, diphtheria, pneumonia, measles, and whooping cough have nearly disappeared. Legislation requiring proof of current immunization for children attending child care programs and schools have contributed to this decreased threat among older children. Nevertheless, many children under the age of three have not been adequately immunized and continue to be at risk.

Replacing infectious diseases as a cause of mortality and morbidity among youth are a range of other preventable problems—injuries, homicides, substance abuse, adolescent pregnancy, etc. Added to this list are mental health issues. An estimated 12% of Missouri's students could benefit from temporary mental health services to help them cope with crisis, stress overload, or developmental concerns. Such services are not readily available in schools or rural communities. The increase in substance use and other inappropriate risk-taking behaviors, the growing number of youth suffering from depression, and the increase in suicide and suicide attempts among youth are indicators that many young people need on-going and intensive mental health care.

The Missouri Department of Health has developed a ranking of health problems for children over the age of one. It is important to emphasize that rural children face additional hazards not faced by their urban counterparts. Many families working in agriculture live in the work place. Children are often exposed to safety and health hazards as non-working bystanders and as helpers at an early age. All too often rural youth are carrying out jobs not suited for their developmental level or age and without the training or safety equipment needed to safely do the job. As a result several thousand children nationally face disabling injury and even death in the farm workplace. Following is the list of health problems of greatest concern for school-age children and adolescents.

Injuries/Deaths

In 1990, 75% (411) of the 551 deaths of youth ages 5-19 resulted from unintentional and intentional injury.

Motor vehicles accounted for more than 50% of injury deaths. Youths in urban areas

are more likely to be injured in motor vehicle incidences, while rural youth are more likely to die as a result of such an incidence.

Homicide and suicide claimed the lives of 111 Missouri youth ages 5-19 in 1990, accounting for 28% of related injury and related deaths.

In 1990, an estimated 4,469 youth between the ages of 5-14 and 8,661 adolescents and young adults in the 15-24 age group were hospitalized due to injury.

Approximately 11 adolescents an young adults between the ages of 15 and 24 died as a result of agricultural related incidence in 1990. Adequate data on the number of youth killed or injured as the result of farm work related injuries does not exist.

Communicable, vaccine, and preventable disease (including oral health, sexually transmitted diseases, adequate immunizations).

In 1990, there were 20,012 reported cases of gonorrhea in Missouri; 33.5% of these cases occurred among youth between the ages of 10-19. (Approximately 11% of the total reported cases for all age groups occurred outside the metropolitan areas.)

Of the reported HIV cases in Missouri, 207 involved youth below the age of 19. In addition, 36.8% of all reported cases among young adults ages 20-29, many of which in all probability came into contact with the virus as adolescents.

Of reported AIDS cases, 56 involve youth below the age of 19; 25% of all reported AIDS cases are to young adults between the ages of 20-29. Twenty percent of all reported cases involved residents living in rural areas.

Substance Abuse (tobacco, alcohol, and other drugs)

A 1991 school-based survey indicated that tobacco an alcohol remained the drugs of choice for Missouri students, 55% of seniors reported having used alcohol during the 30-day period prior to the study and 30% reported smoking.

In rural areas, 20% of the seniors reported using smokeless tobacco, a known risk factor for cancer, in the month prior to the study. This compares to 14% for urban youth.[9]

During 1991, there was a general drop in the use of most illegal drugs, nevertheless, 3% of male seniors reported moderate to high use of amphetamines and stay-awake pills.[9]

A 1988 school-based survey indicated that in Missouri, by the 3rd grade, 16% had tried alcohol and/or cigarettes.

Unintentional adolescent pregnancy

There were 33,664 births to Missouri adolescents between 1985 and 1989, 70% of these births occurred to adolescents who were not married and 41% occurred to teens living in rural areas.

There were an additional 8,246 births to Missouri adolescents under the age of 18 in 1990 and 1991.

Women who have children while in their teens are less likely to finish high school or college and more likely to be unemployed.

Health problems due to dietary inadequacies (iron deficiency anemia, obesity) and lack of fitness

Over one-third of 7th and 12 grade females perceive themselves to be overweight.

It is estimated that 34% of 10-17 years olds are not participating in physical activities that improves heart health.[14]

The rate of obesity in children ages 6-11 has increased 54% since the 1960s, while the rate in adolescents ages 12-17 has increased 39%.[14]

Fifty-five percent of the public schools are currently participating in the school breakfast program. Increased academic performance, improved classroom attentiveness and reduced tardiness and absenteeism are cited benefits of such programs.[13]

Environmental Hazards (contaminated water, air pollution, lead, personal safety, etc.)

Over 40% of private water sources statewide are currently contaminated.[16]

Approximately 25% of Missourians smoke. Children of smokers are known to have higher rates of chronic respiratory illnesses.

While the use of lead-free gasoline has helped to reduce the amount of lead carried in the blood stream of the general U.S. population, lead poisoning continues to be a preventable health concern in children.

Chronic (diabetes, arthritis, cancer, heart disease, etc.)

Cancer is the leading illness related cause of death for Missouri children between the ages of 5-14 and for adolescents and young adults between 15-24 years of age.

It is estimated that at least one-third of Missouri youth have at least one behavioral risk factor—smoking, high fat diets, or physical inactivity—for heart disease which is the country's leading cause of death for males and females.

A health screening of 210 sixth graders in one Missouri county found that 18% of those screened had elevated blood cholesterol levels.

Maintaining the Health of Our Youth

Children do not grow up in isolation, but in ever-expanding environments. Influenced first and foremost by their family, youth are also impacted by their peers, their school and work settings, the media (especially television), and by the community in which they live. Community as well as family factors have the potential to positively or negatively impact health outcomes in youth. Improving and maintaining youths' health status requires strengthening the protective factors while decreasing the negative ones. It also requires addressing risk factors at multiple levels. Finding solutions to such problems as lack of insurance and poverty will require cooperation and collaboration between public and private service pro-

viders, business and industry, and government at all levels. (An estimated 17% of Missouri's children are without health insurance and 17.4% of our children live in poverty.)

Preventing health problems among our youth is a sound investment in the future. Prevention should be a primary objective of any youth-related program. Our youth can be our greatest resource or our greatest burden. The choice is ours. To be and remain healthy, youth need:

Comprehensive Health Instruction: The ability to make responsible decisions is not a function of age alone, rather it is based on attaining accurate information, knowledge, skills, and appropriate attitudes. The goal of education is to teach youth how their bodies and minds develop and work, what strengthens them and what harms them. Included in such health education efforts should be life skills training with special attention to decision-making, self-responsibility and conflict resolution. Emphasis must be placed on educating young males as well as females. The need for health education does not end at the school room door. Special attention should be paid to teaching work site (including farm) safety to young workers. In addition, positive support for healthy behavior should be encouraged by the media which can provide positive messages about proper nutrition and exercise, responsible behavior, and positive conflict resolution.

Access to Health Services: Affordability and availability are keys to providing access. Insurance coverage—private or public—must be extended to any youth. Such coverage should include preventive health care to forestall future problems. Availability could be improved by providing school-linked services involving cooperation among education, health, social service agencies, and parents and youth. To be successful, the youth directly impacted by such services and their parents must be actively involved in all aspects of program decision-making.

Motivation and Support from Adults: Youth need close and continuing contact with caring adults to whom they can take their problems and in whose judgments they have confidence. Parents are the primary health educators of their children.

Parents need accurate information as well as assistance with learning effective communication skills in order to provide appropriate guidance to their children. Equally important is on-going contact with adults who can provide youth with opportunities to be useful and feel competent. Youth must be shown that there are meaningful opportunities for work and involvement in the community. There are many ways to accomplish this goal through youth organizations, volunteer opportunities, mentoring programs, and internships in work settings. All of these require the cooperation of community, government and business leaders.

An Improved Environment: In order to survive, we need adequate air, water, food and shelter. Health is adversely affected, when individuals are deprived of any of these essential environmental factors, or if these factors are impure or toxic. Optimizing health means keeping the quality of the environment that is free of drugs, crime, violence, constant noise and stress. They need an opportunity to breathe unpolluted air and drink water that is not contaminated by chemicals. Youth tend not to think about the long-term consequences of their behavior, encouraging them to do so may become nearly impossible if they are faced daily with environmental threats such as pollution and violence.

Barriers to Maintaining Health

Barriers to adequate health education and care for youth exist throughout Missouri. Such services are even less accessible to youth in most rural areas of our state.

Barrier #1: Existence of Poverty

Twenty-three percent of rural children live in poverty. Low family incomes, the increase in single-parent families in rural areas, and homelessness are contributing factors. The majority of rural counties in Missouri have 20% or more of the households with an annual income of $10,000 or less. One in three Missouri children will live in a single-parent family at some point before they reach the age of 18 and the number of single-parent families in rural Missouri increased between 1980 and 1990. In 1990, 28% of the children in Missouri homeless shelters were located in areas outside St. Louis, Kansas City, and Springfield. This group of youth are especially vulnerable because they have less access to consistent education and routine health care.

Failure to prevent childhood poverty and address the economic needs of families increases not only the level of homelessness but also leads to physical and social morbidities. Teenage pregnancy, unhealthy babies, and school dropout rates greater than 20% exist in a number of rural counties especially in the central and southeast parts of the state. Missouri teens account for 35% of all non-marital births in Missouri. Other problems associated with poverty are increased crime and delinquency, an increase in stress-induced substance abuse, mental illness, child abuse and neglect and lower productivity in the labor market. Intentional violence: Approximately 12 out of every 1,000 Missouri children are the victim of substantiated abuse and neglect. Rural counties are among the counties with some of the highest rates of child abuse per 1,000 population. Such problems impose enormous costs on Missourians including significant increases in funding for treatment of chronic diseases and disabilities, special education programs, foster care, prison, and welfare services.

Barrier #2: The lack of an effective health care system for under-served populations which includes much of rural Missouri.

Particularly in rural areas, access to health-related education and care are affected by a range of complex and interacting factors. Specific factors include:

The inability of many Missouri rural youth and their families to access adequate health insurance. Children of working parents are the fastest growing group of uninsured in this country. In Missouri, 87% of businesses in the private sector are classified as small business (having less than 25 employees). Employees in companies of this size are half as likely to have health insurance for themselves or their families as employees of companies with 100 or more employees. Many of these small businesses are located in rural areas.

Fifty Missouri counties, or parts of counties, have been designated as Manpower Shortage Areas and have an insufficient number of health care providers to meet the needs of the population. Thus, even when a family can pay for health services, such care may not be available without traveling long distances. The problem is compounded by the rapid increase in two-wage earner and single-parent families and by the increasing number of rural individuals who have to commute outside their home county in order to work. Based on 1990 census data, 55% or more of women in almost every county in Missouri work outside the home. In addition, 26% of Missouri workers are commuting outside their home counties to work. As a result, parents are not always available to get children to care when it is needed.

Health services needed by youth are not always available through the local health departments. Contributing factors include budgets that are insufficient to provide all needed services, age limitations on some services, and the inability to recruit and retain professional staff because competitive salaries and benefits cannot be offered. In some cases, the lack of sufficient incomes to purchase needed care is another barrier for youth.

Limited acceptance and expansion of family nurse practitioner programs in Missouri also contribute to the shortage of needed care. This problem, in large part, is due to a lack of cooperation and communication between groups responsible for the licensing of health professionals.

A fragmented system of health-related programming for Missouri rural youth and their families exists. This fragmentation does not allow for effective funding, communication, coordination of services, or collaboration of efforts. As a result, there is a lack of community-based family support networks that can offer referrals and access to a broad range of services including physical and mental health care, health promotion, education, recreation, housing, parenting education and support, employment and training opportunities, and substance abuse prevention and treatment.

In rural Missouri, services are less accessible for youth with time and distance posing considerable barriers. Lack of transportation contributes to the problem. Many rural youth rely on school transportation services to get them between home and school. Rarely do these bus schedules permit participation in after-school sports or club activities that would bring youth into contact with caring adults and positive role models. Nor do these schedules provide youth time to make use of health care that does exist. While rural Missouri has a transportation system, the system is not accessible to all residents in a working community. Underscored populations are the working poor and youth. If you are 16 years old and not eligible for an existing program that includes transportation, you are not likely to have access to transportation on a routine basis. As a result, youth in need of health care have few opportunities to receive such care, even when it does exist in a community.

The lack of nurses in rural schools contributes to the problem as well. Less than 50% of Missouri schools provide nursing services, which means that more than 90,000 children are without the services of a school nurse. As a result, developmental delays may go unrecognized, children with chronic health problems may not have assistance in managing those problems, and qualified medical care may not be available in an emergency. The problem tends to be worse in rural areas.

Lack of inter-agency and intra-agency communication, coordination of services and collaboration (fiscal and other) among community health programs at the state agency level compounds problems at the local level.

Lack of communication and coordination between traditional public community health programs and health-related services offered through the schools and private health care providers is an additional barrier. For example, local physicians and school health personnel (speech therapists/occupational therapists) may be unaware of the changes in the Healthy Children and Youth Program (EPSDT). These health professionals could become Medicaid providers and thus improve access to medical screening, diagnosis and treatment for Medicaid-eligible children living in rural areas.

In small rural communities, the presence of neighbors, friends, and parents who either work in or receive services from existing health service providers poses a threat to confidentiality for sensitive health-related issues of young people.

Barrier #3: Lack of education or sensitivity to the health-related issues and developmental concerns of rural Missouri youth among decision-makers, health-care providers and parents.

Barrier #4: Lack of adequate funding for rural Missouri schools.

Comprehensive school health programs provide communities a vehicle for improving youth's access to a range of services by creating a system which encourages partnerships between community resources available to youth and their families. However, many rural schools are in a survival mode. They don't have the resources to meet the rigorous academic standards required of their students, much less foster initiative, innovation, and creativity among their teachers and staff. As a result, there are few comprehensive school health education programs in rural Missouri.

Yet how can they afford not to provide such programs? It is through an effective safety and substance abuse education program that many of the 75% fatal motor vehicle incidence which occur in rural Missouri could be prevented. It is through effective family life and parenting education that many teen pregnancies could be prevented and the incidence of child abuse and neglect in rural Missouri decreased. It is through the provision of counseling services that the mental health status of youth could be improved. It is through the provision of school nurses and school-linked health services that youth can gain access to care in an emergency and assistance with managing chronic illnesses. And, it is through such programs that youth have access to early screening and identification services which could prevent serious health complications and decrease medical expenses for parents.

Barrier #5: Lack of "prevention" mode of thinking

Decision-making in the health care system all too often focuses on delaying death rather than on promoting health and preventing disease. Although this barrier is not limited to rural Missouri, it presents a greater impact on the health of rural Missouri youth and their families due to the already limited health "treatment" resources available.

Barrier #6: Lack of positive role models

Confusing and inconsistent attitudes and social norms existing in rural Missouri provide youth with mixed messages about what is expected of them. For example, adults in some rural communities unwittingly condone teenage drinking and teens' use of cigarettes and chewing tobacco. How many times do we hear, "Kids will be kids," "I did it, so will they." We send similar confusing messages about sexual behavior. Parents and community leaders must promote healthful lifestyles through their own behaviors and help children form attitudes and develop health-enhancing lifestyles that will protect their health during childhood and into adulthood.

Barrier #7: School drop-out

Although Missouri's drop-out rate is in the vicinity of 25%, there is wide variation across the state, ranging from a low of less than 5% to a high of greater than 50%. Some of the lowest drop-out rates are found in rural north Missouri counties. Rates in southeast rural Missouri are among the highest. The highest rates are found in counties that have had substantial employment and population growth and/or have a high percentage of low-

income students. It becomes more difficult to identify the health-related needs of youth who drop out of school. Rural communities, because of limited services and staff, may fail in their attempts to provide needed services. As a result, many rural youth fall between the cracks and go without the basic care.

Barrier #8: Lack of youth commitment to and ownership in the community

Youth living in rural Missouri communities often lack opportunities to engage in and experience community service. Rarely are they involved in community decision-making about programs which directly affect them. When such opportunities do not exist, youth do not develop emotional ties to and a sense of ownership with their communities. While this barrier also exists for youth living in urban areas, failure to develop the leadership skills of rural youth can have a more direct and negative impact on the well-being and survival of the community.

Barrier #9: Lack of positive leisure time activities in rural Missouri

Risk-taking is normal adolescent behavior. When opportunities for positive risk-taking afforded by individual or team sports, drama groups, or club activities do not exist, youth will engage in negative risk-taking behaviors which can result in substance use, sexual activity, and reckless driving.

Barrier #10: Lack of a coordinated data connection and documentation of results

With increasing frequency, agencies are being asked to be accountable and to measure the impact of their efforts. While progress has been made, particularly in the area of reporting injuries, improving the health status of our youth and improving agency accountability cannot be accomplished without a more effective and "user-friendly" data collection system. In terms of the health-related concerns of youth, this means addressing issues like the following:

Our hesitancy to gather and report personal and sensitive health-related data, i.e., sexual practices of youth, substance use, youths' perception of quality of life, etc.

The lack of a consistent strategy for gathering appropriate health-related data on Missouri youth. The system must look not only at the cause of death, but at disability, hospitalization, root cause of injury/illness, and pay closer attention to geographic (rural/urban) differences.

The need to systematically use data as a tool in designing and implementing effective prevention programs for youth and their families.

Recommendations

Measures taken to improve or maintain the health of youth also have a major impact on our society, contributing to the containment of health case costs and to reducing the loss of human resources due to disabling and chronic conditions which have their roots in childhood. If Missouri is to succeed in protecting the health of our youth, there must be a major commitment from families, communities, health care providers, employers, and government. With this in mind, the Youth Health Task Force is presenting the following recommendations and action steps. Members of the task force believe that all three recommendations must be addressed simultaneously. The action steps suggest some priority measures to be taken within each recommendation.

Improve access to health and mental health care for youth and their families.

1. Remove barriers to nurse practitioners providing care in health programs serving youth and their families.
2. Provide adequate funding for state and local agencies mandated to provide health and mental health services for youth.
3. Eliminate financial and transportation barriers to health care.
4. Implement a statewide medical claims processing system involving the use of a standardized form with electronic transmission in order to simplify reporting and speed reimbursement.
5. Provide adequate and timely reimbursement for services in order to increase and maintain the number of health care providers participating in Medicare/Medicaid programs.

Increase supportive services to parents and other caregivers in order to improve their ability to meet the health-related needs of their children.

1. Support and adequately fund comprehensive school health education programs including school health instruction, school-linked health services (including an adequate number of school counseling and mental health services, in order to improve the health of youth and reduce school drop-out rates. Youth, parents and caregivers should be actively involved in the decision-making process for service design, delivery, and evaluation. A strategy for partial funding of these efforts may be the Medicaid Healthy Children and Youth Program (EPSDT).
2. Provide support and adequate funding for the development of a system of holistic health services at the community level which includes health promotion, prevention and education. Such services should be age-appropriate, culturally sensitive, encourage male and female participation and actively involve youth, parents, and other community members in program decision-making, planning, and implementation.
3. Provide resources needed to conduct a statewide public information campaign targeting youth health issues.
4. Support and fund programs and projects designed to inform parents and youth of existing health-related services available to them in their communities.

Strengthen the community's capacity to meet the health needs of its youth.

1. Promote and facilitate collaboration between existing community coalitions, groups, committees, and boards that are currently assessing youth needs, community services and programs and existing service gaps.
2. Support joint action planning and fund programs that demonstrate collaboration and coordination in the delivery of services to youth and their families and that actively involve youth and parents in program decision-making.
3. Support and fund drug-free and violence-free zones around schools and in neighborhoods.
4. Support and fund the development of model interdisciplinary community-based health-care delivery programs for youth. These pilot projects should encourage state and local networking and collaboration in the delivery of needed services.
5. Support and fund inter-agency collaboration and expansion of a multi-agency data system which allows for adequate tracking and surveillance not only of mortality data but morbidity indicators such as hospitalization, disability and risk behaviors. The system should also allow for tracking of location and root cause of injury or illness.

References

1 Missouri Department of Health. "Primary Care Access Plan" Report of the Bureau of Primary Care, 7-8-92.

2 Office of Social and Economic Data Analysis. "A Graphic Social and Economic Overview of Missouri 1980-1990." Columbia, MO: University of Missouri Extension, 1992.

3 Information provided by the Department of Elementary and Secondary Education.

4 Missouri Department of Health. Missouri Vital Statistics, 1990. Missouri Center for Health Statistics: Publication Number 4.37. September 1991.

5 Missouri Youth Initiative. "Taking Steps: Missouri Youth Profile' 90." MYI, University Extension, 828 Clark Hall, Columbia, MO 65211.

6 Missouri Department of Health. "Injury in Missouri" Data Sources from Division of Health Resources, State Center for Health Statistics, 1992.

7 Missouri Department of Health. "Missouri Gonorrhea Cases 1980-1990" (Graph), Bureau of Sexually Transmitted Diseases, 1991.

8 Missouri Department of Health. "HIV/AIDS Statistics" Bureau of AIDS Prevention. 9/92.

9 Missouri Department of Elementary and Secondary Education, Missouri Student Health Survey Report, 1991. Division of Instruction, July, 1992. The survey involved 38,728 7th and 12th grade public school students.

10 Missouri Children's Services Commission, Coordinating Council for Health Education of Missouri's Children and Adolescents. "Our Children, Our Health, Our Future: Analysis and Recommendations for Health Education in Missouri." Missouri Department of Health, 1990.

11 Missouri Youth Initiative. "Taking Steps: Missouri Youth Profile '90 Data Appendix." MYI, University Extension, 828 Clark Hall, Columbia, MO 65211.

12 Missouri Department of Health. "Missouri Vital Statistics, 1991, Table 10A" Missouri Center for Health Statistics. (Preliminary Data).

13 Miller, C. Arden, Fine, Amy and Adams-Taylor, Sharon. "Monitoring Children's Health Key Indicators." Washington DC: American Public Health Association, 1989.

14 Missouri Cardiovascular Health Task Force. "Missouri Cardiovascular Health Plan: A Focus on Prevention." Missouri Department of Health, Division of Chronic Disease Prevention and Health Promotion, 1991.

15 Data provided by the Missouri Department of Elementary and Secondary Education, School Food Service Program.

[16] Information provided by the Missouri Department of Environment Health and Epidemiology.

[17] Information provided by Lynda Johnson, Regional Food Nutrition Specialists, University Extension.

[18] Data provided by Lynda Johnson, Regional Food Nutrition Specialist, University Extension.

[19] Bogenschneider, Karen, Stephen Small, and David Riley. "An Ecological Risk-Focused Approach for Addressing Youth-at-Risk Issues." University of Wisconsin-Madison, 1991.

[20] Center for Study of Social Policy. Kids Count Data Book: State Profiles of Child Well-Being, Washington, DC 1992.

[21] Missouri Youth Initiative. "Children Poverty in Missouri." Step by Step, Vol 3, (3), June 1992. MYI, University Extension, 828 Clark Hall, Columbia, MO 65211.

[22] Task Force on Education for Young Adolescents. Turning Points: Preparing American Youth for the 21st Century. Waldorf, MD: Carnegie Council on Adolescent Development, 1989.

[23] Information provided by Missouri Department of Health, Bureau of Primary Care.

Rural Youth Health Task Force Members

Mary Kaye Doyle, R.N., Co-Chair
Bureau of Comm. Health Nursing
Missouri Department of Health

Gail Carlson, M.P.H., Ph.D., Co-Chair
Health Education Specialist
University Extension
University of Missouri—Columbia

Nela Beetem, R.N.
Consultant Comm. Health Nurse
Bureau of Perinatal & Child Health
Missouri Department of Health

Betty Crames
Health Education Coordinator
NEMO AHEC

Steve Earp
Program Specialist
Division of Drug & Alcohol Abuse
Department of Mental Health

Mary Simon Leuci
MRII
University Extension
Univ. of Missouri—Columbia

Carol Mertensmeyer, Ph.D.
Director, ParentLink
University Extension
University of Missouri—Columbia

Mary Sue Maginnis
Program Specialist
Bureau of Health Promotion
Missouri Department of Health

Helen E. Miner, R.N., Ph.D.
Department of Nursing
SEMO State University

Sandra Nichols, M.Ed., R.N.
Health Education Consultant
Department of Elementary
and Secondary Education

Mary Ann Reed, R.N.
Community Health Nurse III
Linn County Health Dept.

Eleanor Shaheen, M.D., M.S.P.H.
Child Health Comm. Consultant
School of Medicine
University of Missouri—Columbia

Ada Tweeter
North Central MO Safety Council

Patricia Van Tuinen, M.Ed., CHES
Health Educator
Office of Injury Control
Missouri Department of Health

Alan Welles, Chief
Bureau of Primary Care
Missouri Department of Health

REPORT AND RECOMMENDATIONS

RURAL ELDERLY TASK FORCE

OF THE

MISSOURI RURAL HEALTH COALITION

INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

EXECUTIVE SUMMARY

Introduction

Missouri's fast growing population of rural elderly mandates the need to identify the problems associated with rural elderly health care and to formulate recommendations to alleviate these problems. Missouri is in the top 10 states with 14.0% or more of persons 65 or older constituting the total population in 1990. There are 718,000 older Missourians and 43% of them reside in rural areas. Also, 144,000 Missourians have been diagnosed with Alzheimer's disease. An average of 13.8% of persons 65 and older live below the poverty level in Missouri.

Availability, access, cost, transportation, and public education to promote wellness are key issues which are integrally linked to health care conditions in rural Missouri.

Rural elders are disadvantaged in comparison to their urban counterparts in key indicators affecting health and well-being. For example, a significantly greater proportion of the rural population is aged 65 and older, with a substantially larger percent of them aged 85 and older. In rural communities, a greater proportion of rural elderly have incomes below the poverty level than their urban counterparts. There are also fewer physicians, nurses, and hospital beds per person in rural areas to serve the needs of this vulnerable population.

Between 1980 and 1987, ten acute-care rural Missouri hospitals closed. In some communities, alcohol and drug abuse facilities and rehabilitation institutions reopened these facilities, keeping the total number of hospitals relatively stable. However, the loss of an acute-care hospital in a rural community decreases the variety of health care services available.

The need of the rural minority elderly are difficult to address because of the low population density in the majority of rural Missouri counties, with the exception of the Bootheel.

Task Force Findings

In the course of eight meetings (beginning April 1991), the Rural Elderly Task Force narrowed the urgent health problems of rural elders in Missouri to:

- Deficits in primary care
- Deficits in long-term care
- Deficits in promotion of health and wellness
- Deficits in transportation

Correlatively, recommendations to alleviate these deficits were narrowed to:

- Increase number of primary health care professionals to care for rural elderly.
- Increase promotion of health and wellness.
- Increase number of preventive health and mental health care programs to care for rural elderly.
- Provide nucleus for exchange and distribution of information and education related to the improvement of rural health for elders.
- Increase non-institutionalized long-term care options in rural areas (e.g., home care services, adult day care, hospice).
- Increase quality of care in long-term care.

HEALTH CARE ISSUES FOR MISSOURI'S ELDERS

PROBLEMS	RECOMMENDATIONS
1. DEFICITS IN PRIMARY CARE	
• Lack of primary care health professionals -Physicians -Nurse practitioners -Community health nurses -Mental health professionals -Physical therapists -Occupational therapists	• Provide incentives to recruit and retain health care professionals. • Remove regulatory barriers to professional practice; address social and economic barriers. • Increase availability of support services for professionals (including collegial networking, telecommunications, and continuing education). • Reallocate health care resources to primary care.
• Lack of rural health clinics	• Remove regulatory barriers to service delivery (e.g., enact waivers) • Encourage an interdisciplinary, collaborative, team approach among professionals.
• Lack of preventive health and mental health programs	• Increase the awareness of the need for mental health program services (i.e., the elderly have the highest percentage of suicide among any age group). • Reallocate health care resources to community-based mental health programs.
• Inadequate capability to respond to emergencies	• Develop a system of fully equipped modern ambulances and trained crews.
• Lower utilization rates of health care services (physicians/nurses)	• Alleviate transportation problems. • Increase knowledge of available services.

PROBLEMS	RECOMMENDATIONS
2. DEFICITS IN LONG-TERM CARE (LTC)	
• Institutional -Lack of trained professionals and ancillary staff -Lack of trained support staff	• Provide incentives to recruit and retain long-term care (LTC) staff. • Promote the institutional climate to improve the quality of LTC services: -Remove regulatory barriers to allow creative management. -Increase financial resources. -Increase staff education in the area of social gerontology and geriatrics. -Increase community overview of the delivery of services (e.g., Ombudsman Program).
• Community-based services -Lack of support services, including: -adult day care -respite care -home health care -home chore and companion services -gatekeeper programs that use community networks such as mail carriers and utility workers to monitor well-being of isolated elders -adult foster home care -telephone reassurance and hot lines	• Remove regulatory and financial barriers to the establishment and delivery of community-based options to institutional care. • Provide information and education regarding the availability and appropriate use of LTC options.

PROBLEMS	RECOMMENDATIONS
3. DEFICITS IN PROMOTION OF HEALTH AND WELLNESS	
• Lack of acknowledgment and awareness of health problems • Lack of knowledge of available preventive health resources • Lack of emphasis on preventive health	• Increase support for preventive health through educational programs, screening services, exercise and stress reduction activities, and the creation of barrier-free environments. • Increase awareness among the elderly and their caregivers regarding the positive value of preventive health services. • Increase acknowledgment by the health care professionals of the positive value of preventive health services for the elderly population. • Provide the nucleus for exchange and distribution of information and education related to the improvement of rural health for elders.
4. DEFICITS IN TRANSPORTATION	
• Lack of coordination of existing services (including volunteer services) • Lack of funding • Lack of vehicles equipped to assist the elderly • Lack of knowledge about how to overcome regulatory barriers or about the impact of the Americans with Disabilities Act	NOTE: Addressing transportation problems, although a distinct need identified at the first meeting, was not targeted for recommendations by the Rural Elderly Task Force because a separate task force on transportation is dealing with this item.

Rural Elderly Task Force

Alice Kuehn, Co-Chair
Assistant Professor
Gerontological Nurse Practitioner
S322 School of Nursing—UMC
Columbia, MO 65211
314-882-0232

Lanis Hicks
Associate Professor
Health Services Management
324 Clark—UMC
Columbia, MO 65211
314-882-8418

Art Schneider
Human Development Specialist
1st Floor, Courthouse
Boonville, MO 65233
816-882-5661

Charles Fluharty
Co-Director
Rural Policy Research Institute
130 Mumford Hall—UMC
Columbia, MO 65211
314-882-0316

Linda Breytspraak, Director
Center for Aging Studies
5245 Rock Hill
Univ. of MO—Kansas City
Kansas City, MO 64110
816-235-1744

Amy Vogelsmeier
Dyana Linvsey
Fitzgibbon Hospital
PO Box 250
Marshall, MO 65340
816-886-7431

Delores Davis-Penn
State Extension Specialist
in Gerontology
Lincoln University
900 Moreau
Jefferson City, MO 65101
314-681-5545

Anne Deaton, Co-Chair
State Extension Specialist
in Gerontology
314 Clark—UMC
Columbia MO 65211
314-882-6012

Sandy Gifford
Aging Program Specialist
MO Division of Aging
2701 West Main
PO Box 1337
Jefferson City, MO 65102
314-751-3082

Steve Zweig
Family & Comm Med—UMC
MA228 Medical Science Bldg
Columbia, MO 65211
314-882-9099

Lois Long
Director of Eldercare Center
137 Clark Hall—UMC
Columbia, MO 65211
314-882-7070

Share Bane
National Research Center
for Rural Elderly
#9 Scofield
5100 Rockhill
Kansas City, MO 64110
816-235-1024

Bonnie Wharton
Home Care of Mid-Missouri
204 West Rollins
Moberly, MO 65270
816-263-1517

Lillian Metzgar
Rt 4, Box 325F
Troy, MO 63379
314-528-4214

Georgia Walker
Swope Ridge Geriatric
5900 Swope Parkway
Kansas City, MO 64130
816-333-2700, ext. 658

REPORT AND RECOMMENDATIONS
AGRICULTURAL HEALTH TASK FORCE
OF THE
MISSOURI RURAL HEALTH COALITION
INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

Prepared by

The University of Missouri/NIOSH

Agricultural Safety and Health Advisory Committee

Profile of Missouri Agriculture

In 1991, there were an estimated 107,000 farms in Missouri, which constituted 5.2% of the total number of farms nationally (1992 Missouri Farm Facts). These farms encompassed a total of 30.4 million acres of farmland. The average farm size in Missouri was 284 acres, compared with a national average of 467 acres.

Missouri farms produced 3.851 billion dollars of cash receipts from the sale of agricultural commodities during 1991. Nearly 1.1 billion dollars of these receipts were the result of overseas exports. About 60% of these receipts came from the sale of livestock and livestock products, and about 40% from the sale of crops. Missouri commodities in order of receipts were: cattle, soybeans, hogs and dairy products.

There are an estimated 130,000 Missourians employed in agricultural production. Approximately 80% of these workers can be classified as family labor, while the remaining 20% are classified as seasonal permanently hired employees.

The average farm operator in Missouri is 52.9 years of age, a 3.7 increase in age over the 1982 census (51.0 years of age). Approximately 70% of farmers surveyed had farmed more than 10 years.

An increasing number of Missouri farmers are becoming part-time or "sundown" farmers. Based on the 1987 Census of Agriculture, only about half of the farm operators reported farming as their principal operation. Sixty-two percent of these farmers reported they were working some off the farm, and 39% reported working more than 200 days off the farm.

Missouri Agricultural Accident Situation

Fatalities

According to data from the Bureau of Health Data Analysis, agricultural work accidents are the most frequent cause of occupation-related fatalities in Missouri. During the period 1986-90, there were 199 agricultural work deaths (Table 1). A disproportionate number of these occupational deaths in agricultural settings occurred to individuals over 55 years of age (52%). Males were involved in 93% of fatal agricultural accidents.

On an average, agricultural machinery accounts for approximately 81% of agricultural work fatalities each year. Tractor accidents account for about 78.9% of machinery fatalities. Approximately 58% of these tractor fatalities are the result of tractor overturns, which occur at a rate of about 15 deaths per year.

Forty-six percent of the Missouri agricultural unintentional injury deaths occurred in June, August, September, and October.

Table 1

Agricultural Unintentional Injury Deaths by Agent of Accident

	1986	*1987*	*1988*	*1989*	*1990*	*Total*
Machinery	36	33	32	25	35	161
Tractor	24	28	28	19	28	127
(Overturns)	(15)	(14)	(16)	(12)	(17)	(74)
Auger	3	--	--	1	--	4
Truck	1	2	1	2	--	6
Mower	2	1	2	2	5	12
Misc	6	2	1	1	2	12
Animal	1	--	1	1	--	3
Tree cutting	--	4	5	--	1	10
Grain bins	--	2	1	--	--	3
Electrocution	--	2	1	2	2	7
Drowning	--	1	--	1	--	2
Fire	--	--	2	1	--	3
Unspecified	6	2	--	2	--	10
Totals	43	44	42	32	38	199

Injuries—Agriculture

Disabling injuries also have had a significant impact upon the agricultural population. Nationally, approximately two-thirds of agricultural disabling injuries are classified as severe and/or permanent. Few of these injured workers are covered by Worker's Compensation; therefore, undue financial stress is placed on the individual and his or her family and community.

Based upon the 1989 Missouri NIOSH/NSC Farm Work Injury Mail Survey, there were 15.61 injury incidences per 100 farms in Missouri. Eighty percent of these accidents involved family labor. Forty-nine percent resulted in five or fewer lost days of work.

Thirty-two percent of the injury accidents involved farm machinery. Tractors were involved in one-third of the machinery injuries. Livestock were the next highest accident agents after machinery, accounting for 25.5% of the agricultural work injuries.

This survey found that the hand was the most frequent body part injured, followed by the arm/shoulder and back, respectively. These three body parts accounted for 45.8% of the injuries reported. The most frequent type of injury was a cut (18.6%), followed by sprains and strains (16.9%), and bruises (15.3%).

Occupational Health

Unlike accident data, occupational health statistics, for the most part, have not been gathered on a systematic basis at the state or national level for agriculture. According to the Bureau of Labor Statistics (BLS), over 190,000 occupational illnesses were recognized or diagnosed nationally in 1987 (NSC 1989). The BLS established that the overall incidence rate of occupational illnesses for all workers was 26.1 per 10,000 full-time workers. The same study estimated the agricultural incidence rate was 51.7 per 10,000 workers. Agriculture had the second highest incidence rate, with manufacturing being first. The study found that agricultural workers had the highest incidence rates of all the industrial divisions for skin diseases and respiratory conditions due to toxic agents and poisoning. It should be noted that all farms with less than 11 employees were excluded from the study. For Missouri, this is a major segment of the industry.

A study of Missouri of "High-Frequency Hearing Loss in the Male Farmers of Missouri," conducted by the University of Missouri, found that farmers have a significantly higher risk of hearing loss than their non-farm male counterparts (Public Health Reports, 1983). Fixed-level screening tests were conducted in both ears of 258 male farmers and 251 male non-farmers at three frequencies: 1000 and 2000 H_2 at 20 dB HL and 4000 H_2 at 25 dB HL.

Although limited in number, each study of agricultural workers has found, in most cases, farmers, their families and workers suffer a higher frequency of health-related disabilities than their non-farming counterparts. This is especially true as it relates to such as Farmers Lung, toxic organic dust syndrome, bronchitis and asthma, as well as certain forms of cancer, arthritis and dermatitis.

There also are certain infectious diseases which are much more likely to occur in farmers and their families. These are histoplasmosis, ornithosis, Q fever, bovine tuberculosis, hydatidosis, Newcastle disease, swine influenza, tularemia and erysipelas.

Recommendations

The agricultural population is exposed to a wide range of physical and environmental hazards. Most research will show that this population suffers a disproportionate share of the fatalities, injuries and health-related disabilities that result from this exposure. It should be emphasized that PREVENTION is the goal for agricultural health and safety rather than treatment efforts. Certainly this is true for humane reasons; however, in this era of intense concern about health care costs, an ounce of prevention in morbidity and mortality would be staggering. An extant example is the unguarded moving shaft (power take-off). The protective shields cost about $200, while the health care for injuries involving unguarded shafts cost in the neighborhood of $500,000. This figure does not account for the tremendous psychological trauma to the victim and the family. Interventional medicine depends upon the presence of injuries or disease, while agricultural safety and health intervention promotes injury and illness prevention, and preventive medicine promotes health and wellness. Fortunately for everyone, there is a shift toward this promotion of health and wellness and injury prevention. Now is the time to make agricultural safety and health a reality.

Based on these facts, the Advisory Commission makes the following recommendations to the Missouri Department of Health, Office of Rural Health for consideration:

- Create central focus for agricultural safety efforts. Although a coalition will be working on a variety of topics, we recommend that the University Extension Agricultural Safety Program serve as convener and coordinator.

- Establish a strong, usable database specific to agriculture.
- Since tractor overturns is the leading cause of agriculture-related deaths, establish a public/private partnership to address the issue of tractor overturns.

- Agriculture-related illnesses often are not diagnosed by attending physicians because of lack of training in identifying agricultural diseases. Thus, a need exists to include agricultural safety and health intervention as part of the post-doctoral residence training in primary care specialist programs, particularly in family and community medicine.

Agricultural Safety and Health Advisory Task Force Members

Dave Baker, Chair
205 Ag. Engineering
Univ. of Missouri—Columbia
Columbia, MO 65211
314-882-2731

Sandra Clarkson
PO Box 214
Keytesville, MO 65261
816-288-3675

Paul Cook
MA 314 ENT
Univ. of Missouri—Columbia
Columbia, MO 65211
314-882-8173

Mary Kaye Doyle
Bureau of Comm. Health Nursing
PO Box 570
Jefferson City, MO 65102
314-751-6169

Jeff Flora
Western Retailer Association
PO Box 491264
Kansas City, MO 64141
816-561-5323

Gordon Howard
American Lung Association
PO Box 1321
Columbia, MO 65202
314-449-2249

Mike Kraemer
NO AM Equip. Dealers Association
Watson Road
St. Louis, MO 63127-1081
314-821-7220

Barry Link
University Extension
2507 Industrial Drive
Jefferson City, MO 65109
314-634-2824

Jim McRoberts
McRoberts Farms, Inc.
1001 Cherry St., Suite 210
Columbia, MO 65201
314-449-2249

Max Miller
4-H
210 Whitten Hall
Columbia, MO 65211
314-882-3226

Diane Olson
Missouri Farm Bureau
PO Box 658
Jefferson City, MO 65102
314-893-1414

Alan Welles
Bureau of Primary Care
MO Dept. of Health
PO Box 570
Jefferson City, MO 65102
314-751-6219

Kathy Zents
Safety & Health Council of
Western MO and KS
901 Charlotte
Kansas City, MO 64106
816-842-5223

Garland Land
Division of Health Resources
MO Department of Health
PO Box 570
Jefferson City, MO 65102
314-751-6272

REPORT AND RECOMMENDATIONS

OF THE

DENTAL HEALTH TASK FORCE

TO THE

MISSOURI RURAL HEALTH COALITION

INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

Originally prepared by

The Office of Rural Health

as a report to

Governor Carnahan and the Missouri Legislature

The significant role oral health plays in overall health status is well documented in the scientific literature. Unfortunately, this impact is often overlooked in health policy decisions. Too often, we see health policy overlooked in health policy decisions made on the basis of medical, dental, and other components, rather than an integrated health component. This tends to fragment care which increases costs and is detrimental to the health of many Missourians.

Lack of access to adequate preventive and restorative oral health care leads to a crisis management situation. Citizens with pain, infection, and swelling show up at hospital emergency rooms. They are treated with antibiotics and pain medication which addresses the immediate symptoms, but does not alleviate the cause. This is often uncompensated care for the hospital to absorb. When the next acute episode occurs, the cycle is repeated.

This lack of access to adequate preventive and restorative care in rural Missouri often revolves around the lack of adequate Medicaid providers. In some counties there are no dental Medicaid providers at all. This situation has developed over time to the point where the current dental Medicaid budget is barely 1% of the total Medicaid budget. The current fee structure is about 23-25% of the usual and customary fee. The average general dentistry practice in Missouri runs about a 60% overhead cost. This means that when a dentist treated a Medicaid patient, he/she is reimbursed less than half of the cost to treat. Obviously, no one can continue indefinitely to do business that way. There had not been a Medicaid fee adjustment for general dentistry since the mid-1970's. Few things in our society are still the same price that they were in the '70's.

Adequate funding, in and of itself, would not necessarily result in complete amelioration of this situation, although it would be a significant first step. Concerns about poor provider relations from the Department of Social Services, and patient apathy, complicate an already difficult situation. However, there is reason to believe that the dental profession would respond, if the funding issue were seriously addressed.

There was some hope that this issue would be addressed, at least for the most needy children, in the OBRA '89 legislation. This federal budget mandated expansion of the Early Periodic Screening Diagnosis and Treatment Program (now called Healthy Children and Youth) and contained participation requirement. Unfortunately, once again, the medical and dental components were separated and the imperatives were not applied to the dental component.

In summation, there are many dentists in rural communities who treat needy and uninsured patients and simply absorb the cost rather than deal with the complicated and underfunded government programs. While this is commendable on the part of the dental profession, it does not adequately nor equitably address the oral health care and health care needs of many rural Missourians. One segment of our society should not have to bear the burden for what is accepted as a societal responsibility. One segment of our society should not have to suffer ill health because society as a whole will not accept its responsibilities.

Prevention of disease and suffering is always less costly than treating the damage of the disease. This axiom is perhaps, best illustrated in oral health. When children grow up with an adequately fluoridated water supply, and dental sealants are applied in a timely fashion to at risk teeth, and the children develop good oral hygiene practices, fostered by a strong oral health component in the school curriculum, they can grow to adulthood with an intact dentition, i.e., no fillings and no decay.

Recommendations

1. Statewide mandatory optimal fluoridation of all community water supplies.

2. Fluoride supplements for children below 185% of poverty in those areas not served by a community water supply.

3. Mandatory dental exam and follow-up for all children entering the school system for the first time.

4. Adequate funding for the dental portion of the Medicaid program.

5. Dental sealants for first and second permanent molars for children below 185% of poverty.

6. Insure that there is a strong health component including oral health in the elementary school curriculum.

These recommendations would be relatively inexpensive to implement and would be more than offset by better oral health and healthier citizens less dependent on Medicaid acute care.

REPORT AND RECOMMENDATIONS

RURAL HEALTH PERSONNEL TASK FORCE

OF THE

MISSOURI RURAL HEALTH COALITION

INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

Statement of Problem

Rural America continues to experience rapid social and economic change. The access to and the quality of health care has also been dramatically influenced as a result of these changes.

Trends that "are having a major impact on the ability of the rural health care system to respond to current needs are as follows:"

- restricted reimbursement by public and private payers, resulting in conflict between cost-containment and access goals;
- increased financial risk for hospitals, particularly smaller, rural facilities;
- structural changes in the health care delivery system, including continued consolidations;
- shift of the focus of care from inpatient to outpatient settings;
- changes in physician practice patterns due to increased competition and the expansion of managed care programs;
- health care institutions' increased need for capital;
- an inadequate supply of health personnel (physicians, nurses, and allied health professionals) in rural areas;
- rapid advances in medical technology with increased consumer and provided expectations; and
- fragmentation and lack of resources of emergency medical systems in many rural areas. (Rural Emergency Medical Services—Special Report, page 2)

Most of these trends overlap with one another and cannot be addressed without considering the interrelationship present among a wide variety of factors that exist in rural America. Furthermore, different regions and communities throughout the rural United States will have additional local economic and social profiles that will require other individualized approaches to improving health care services and accessibility.

Rural Health Personnel Shortages

Hicks (1990) observes that rural residents must typically seek access to the formal health through local physicians. The absence of physicians in a rural community can, therefore, serve as a major hindrance to promoting access to formal health care systems. Such access is further complicated if other health professionals such as nurses, social workers, and allied health professionals are also not easily accessible by these consumers.

Recent trends related to rural health personnel demonstrated the significance of personnel shortages in rural America.

- Although 22.5% of the U.S. population lives in nonmetropolitan areas, only 13.2% of all patient-care physicians, and 6.7% of those physicians who are hospital-based, practice in these areas.

- Although about a fourth of the U.S. population lives in nonmetropolitan areas, only 17% of nurses do, and one out of seven "rural" nurses actually works in urban areas.

- About 23% of Americans live in nonmetropolitan areas, fewer than 17 percent of allied health personnel reside in such communities, and fewer than 13% of the training programs for allied health professionals are located in nonmetropolitan areas.

- The ratio of primary care physicians (MDs and DOs in general and family practice, internal medicine, pediatrics, and obstetrics/gynecology residents) per 100,000 population in 1988 was 96.2 in metropolitan areas compared to 55.6 in nonmetropolitan areas.

- In 1990, there was an estimated shortage of 45,382 FTE registered nurses in nonmetropolitan areas in the United States.

- In 1988, the ratio of all non-federal patient-care physicians (MDs and DOs including residents) per 100,000 population in metropolitan areas was 222.5 compared to 96.3 in nonmetropolitan areas.

- In 1988, 28.4% of the nonmetropolitan population lived in areas designated to have a shortage of primary care physicians, compared to 9.5% of the metropolitan population.

- More than 16 million Americans lived in areas designated to have a shortage of dentists in 1990. Of the 794 designated dental shortage areas nationwide, 73% were nonmetropolitan.

- Sixty-eight percent of the 623 areas designated to have a shortage of psychiatrists were nonmetropolitan.. (Source: Rural Health Professions Facts, 1991)

Existing Resources

There currently exists a wide variety of public and private health professional schools, colleges and programs throughout Missouri. As with most states, the more specialized and high level of preparation is centered in Missouri's metropolitan areas.

Most of these health professional programs are filled to capacity and large numbers of applicants are being denied admission. The number of persons seeking careers in the health professions continues to rise rapidly as the opportunities for excellent careers is projected to continue well into the next decade.

Even if the capacity of existing health professional programs was increased, there is no assurance that the number of rural practitioners would also increase at the same rate. Most studies have found that special efforts must be taken to address ways that the shortages of rural health professionals can be alleviated. These efforts include state and federal initiatives, local community sponsorship and educational curricula that provide for rural health care clinical experiences.

Recommendations

The committee on Rural Health Personnel makes the following recommendations in regard to finding solutions to Missouri's rural health professions shortages:

A. Recruitment

1. Health professions educational programs should establish a rural health admission track for students from communities of less than 10,000 population and interested in practicing in rural Missouri. Special consideration should be given to these students for admission and an appropriate number of positions in each class should be reserved for students on the rural admission track.

2. Special health careers preparatory programs should be developed for rural students interested in a career in the health professions. These programs would allow rural students to learn about the range of opportunities in the health professions. In addition, program components could be developed to assist socially and educationally disadvantaged rural students become more competitive for admission by strengthening their skills in curriculum content areas and program application procedures.

B. Education

1. Rural health care should be included as a component of all health professions curricula.

2. Opportunities for rural-based health professions education must be expanded to incorporate rural clinical sites to include significant time allocated for on-site rural community education.

3. The state must expand its capacity to educate more allied health professionals to help address critical shortages throughout Missouri.

4. Multidisciplinary team approaches to primary care should be incorporated in health professions curricula with opportunities for student teams to have clinical rotations in rural Missouri communities to practice these approaches.

5. Nurse midwifery programs must be developed to help fill a critical need for care in rural Missouri.

6. Missouri's health professional schools should look to *Health America: Practitioners for 2005*, a report of the Pew Health Professions Commission, 1991, as a guide for graduating practitioners. "..with expanded abilities and new attitudes to meet society's evolving health care needs" (page 17). The ability to care for the community's health is one such competency that is emphasized in this report.

7. The use of technology should be studied as a means to deliver rural on-site professional education and continuing education.

8. The use of community-based faculty should be expanded and more fully utilized to support rural-based education and to foster appropriate role models for students.

9. Community development assistance and local citizen training should be included as a strategy by which community residents can learn about appropriate health care expectations and accessing the health care system from a local perspective.

C. Placement

1. Loan forgiveness, stipends and loan repayment programs should be developed to support graduates who are placed in rural communities and the health personnel shortage areas in the state.

2. The Health Resources and Services Administration should establish new guidelines by which individual states could designate their own primary medical care health professional shortage areas to include an expanded list of health professional types.

D. Retention

1. There must be fair and equitable reimbursement to those health professionals who practice in rural Missouri. For example, Missouri Medical should provide bonus payments to physicians who practice in underserved areas.

2. There is a need for a strong Missouri Office of Rural Health to support the development of rural health clinics and the retention of rural practitioners.

3. Support systems and service must be developed to assist rural practitioners function in rural settings. For example, business/billing support, on-call and vacation coverage and technological linkages to tertiary care facilities would help alleviate what are often major reasons cited for dissatisfaction with rural practice.

4. Rural community development programs should be developed to assist communities learning about recruitment, retention, and maximum utilization of local health care professionals.

Summary

Significant educational, sociological and economic factors exist today that contribute to Missouri's rural health personnel shortages. The Rural Health Personnel Task Force believes that implementation of the above recommendations would have a very positive impact on this critical problem. Additional student input is needed to continue to look at those factors that influence the recruitment, education, placement and retention of health personnel in rural communities. Other states have had success in addressing this problem and Missouri must move quickly before the disparity between metropolitan and rural health care grows larger.

Health Personnel Task Force Members

Richard Oliver, Co-Chair
School Health Related Professions
504 Lewis Hall
Univ. of Missouri—Columbia
Columbia, MO 65211
314-882-8013

Janet Head
MO Rural Area Health Educ. Center Project
800 W. Jefferson
Kirksville, MO 63501
816-626-2887

Craig Brace
Audrain Medical Center
620 East Monroe
Mexico, MO 63565
816-748-7098

Roger Bryan
MCMMHC
PO Box 30
Trenton, MO 64683
816-359-4487

Mike French, Co-Chair
MO Rural Area Health Educ. Center Project
800 W. Jefferson
Kirksville, MO 63501
816-626-2887

Ted Groshong
School of Medicine
MA204 Medical Science Bldg.
University of Missouri—Columbia
Columbia, MO 65201
314-882-3490

Barb Horrell
Office of Student Affairs
MA202 Medical Science Bldg.
Univ. of Missouri—Columbia
Columbia, MO 65211
314-882-2923

Harold Kirbey
Bureau of Primary Care
MO Department of Health
PO Box 570
Jefferson City, MO 65102
314-751-6219

Mary Leuci
MRII
529 Clark Hall—UMC
Columbia, MO 65201
314-882-5859

Nick Nichols
Missouri Hospital Association
PO Box 60
4713 Highway 50 West
Jefferson City, MO 65102
314-893-3700

Toni Sullivan
S215 School of Nursing
Univ. of Missouri—Columbia
Columbia, MO 65201
314-882-0278

Fred C. Tinning
Kirksville College of Osteo. Medicine
800 W. Jefferson
Kirksville, MO 63501
816-626-2391

REPORT AND RECOMMENDATIONS
HEALTH TRANSPORTATION TASK FORCE
OF THE
MISSOURI RURAL HEALTH COALITION
INITIATIVE

Presented to

The Missouri Office of Rural Health Advisory Commission

EXECUTIVE SUMMARY

Introduction

Access to heath services, preventative as well as treatment, is one of the major crises facing rural Missourians today. People living in rural areas are often denied access due to lack of adequate transportation to and from the service provider. During the past three years, participants in the Missouri Rural Health Satellite Seminars have consistently ranked transportation as an important health issue in their localities. A rudimentary survey of elderly and handicapped transportation providers has also pointed to the great unmet demand for transportation to health services.

A large percentage of rural Missourians are elderly and poor and depend on Medicare and Medicaid for payment of health care services. Both programs provide coverage for emergency ambulance transportation. Neither program provides non-emergency medical arrangements of the Department of Highways and Transportation, the Division of Aging, the Department of Mental Health and other state and local government entities and volunteer efforts. The Health Care Financing Administration requires that state Medicaid programs assure the availability of transportation to health services. At this time, Missouri does not have a Medicaid-funded program to reimburse NEMT services.

An increasing number of Missourians, classified as non-Medicaid indigents, are unable to afford the cost of health care and/or the transportation to available public, preventive, primary care and other health services. Transportation was identified as one of the priority issues among county health centers during a statewide health assessment in 1991.

This report provides the results of: (1) county discussions held as part of the 1990 and 1992 Rural Health Satellite Seminars; (2) a survey of two types of current public transportation providers in the state; (3) a review of the South Carolina transportation program for Medicaid including the Early Periodic Screening, Diagnosis and Treatment Program (EPSDT); and (4) a Missouri Medicaid pilot project for provision of non-emergency medical transportation conducted in central Missouri during 1990-1991.

Strategies for addressing the need for access to rural transportation for all populations are proposed and recommendations for development of a comprehensive approach to providing non-emergency medical transportation for Medicaid, EPSDT, and others in need of assistance have been developed on the basis of the needs and the experience of existing public transportation providers.

With adequate funding and staff, we can build on Missouri's existing transportation network and resources to provide non-emergency medical transportation for Medicaid-eligible residents and a significant number of other Missourians (primarily elderly and handicapped). Based on South Carolina's experience, 50% of the total Medicaid-eligible population will participate in the transportation program when it is fully implemented. The current Missouri Medicaid population is 619,000. It is anticipated that it would take five years to reach capacity—build the network for arranging and approving Medicaid transportation services and a system for provider recruitment and contracting of providers. At the same time, the broader network to provide greater and more efficient transportation services for Missourians, in general, can and should be established.

Strategies

- Increase coordination of existing and future transportation services to more efficiently use available resources.
- Provide increased transportation services available to non-Medicaid-eligible persons seeking access to non-emergency preventive, educational and treatment services.
- Provide reimbursement for non-emergency medical transportation of Medicaid-eligible persons.

Recommendations

1. Provide an increase in funding for the Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP) for FY 94 and future years based on percentage of actual increases in grantee participation.

   Note: The Missouri Highway and Transportation Commission endorses a $3,600,000 increase in this program to assist in providing more rural health transportation. Such transportation is available for any citizen, i.e., would not require Medicaid eligibility, etc.

   MEHTAP provides for a maximum 50% match participation in operational cost for non-profit organizations who provide transportation; but in FY 92 state general revenues provided only 14.8%. This program is our best existing general revenue resource to assist elderly and handicapped with their needs for non-emergency medical transportation

   Explore the use of these current services by Medicaid-eligible persons for NEMT as a means of drawing additional federal matching Medicaid NEMT funds.

2. Secure funding for reimbursement of non-emergency medical transportation to approved services for Medicaid-eligible persons.

   Note: The Department of Social Services will be requesting $15.7 million for FY 94 for reimbursement of non-emergency medical (includes preventive treatment and screening services) transportation services for EPSDT clients. Additional requests are being submitted for the necessary Division of Medical Services state staffing and Division of Family Services local staffing (counties) to provide transportation services, and a computerized system for tracking and scheduling.

   Resources do not exist at the local level to do the work necessary to coordinate and access NEMT services. New staff would have to be included in the budget and hired in each local DFS office to arrange NEMT services. Likewise program development staff and support staff are required at the state Medicaid level for development and implementation of the program. Even if funds are appropriated for the service dollars, this program cannot be implemented with current inadequate local and state staff. Funds will also be necessary to develop a computer network for efficient appointment scheduling, monitoring, and reimbursement of transportation providers.

Ensure that existing Missouri transportation providers who meet the Medicaid Providers Qualifications have an equal opportunity to participate in the program.

Recognize the Department of Social Services as a single state agency charged with the responsibility for administering the Medicaid Program in Missouri (federal wording). (This does not prevent Medicaid from participating in an interagency agreement that provides for coordination of transportation services, but Medicaid monies must be administered by DSS.)

3. Establish an informal interagency working task group comprised of state level representatives from MHTD, DSS (Division of Medical Services, Division of Aging, and Division of Family Services), DOH, DMH, DESE, and other appropriate agencies for networking and a coordinated transportation program in Missouri.

   Note: MHTD has begun to meet with the Division of Aging for such a purpose. At the regional level, Regional Specialized Transportation Coordination Councils have been meeting since 1988 for this purpose.

   This interagency group would focus in particular on coordinating efforts to develop NEMT services to the adult Medicaid population, how to maximize general revenue dollars and maximize the federal match which can be drawn (current match drawn by most of these agencies plus that which would be available for Medicaid (NEMT)).

   This group would also focus on how to coordinate among various agencies to provide more comprehensive and cost effective transportation.

   It is currently suggested that one such step would be developing a Memorandum of Understanding between MHTD and DSS to allow a portion of any increase in MEHTAP that is not being matched to be used as a general revenue match for additional federal funds for Medicaid transportation.

   - This option could be exercised if existing levels of Medicaid transportation were not meeting actual demand.

   - MHTD presently has a Memorandum of Understanding with the DSS Division of Aging which provides the Division of Aging with the ability to generate additional federal funds for transportation activities by using the general revenue allocation to the ten Area Agencies on Aging (AAA) as match. This general revenue source allocated to the AAA's is not being matched by other federal or local sources.

   - The MHTD is willing to participate in the match effort to generate additional federal funding.

4. Designate an agency to nurture coordination of federal and state transportation activities. This agency (with the cooperation of all funding agencies, local or regional transportation providers and local officials) would nurture the determination of needs, development of qualifications to encompass all regulations for providers, development of a uniform state program RFP process, and the drafting of universal contracts with grantees that cover all funding sources. This task force recognizes and recommends MHTD for this task because of its experience in this arena through its work with regional coordinating councils.

Note: This would provide for maximum coordination of funds, services, regulations, vehicles and local efforts.

A comprehensive study conducted by Carter Goebel in 1989 with the cooperation of the Regional Planning Councils and the Area Agencies on Aging has documented existing services and resources and transportation needs in Missouri. This information needs to be updated to reflect changes in needs and resources.

5. Explore change in regulations to allow school districts, churches, and other non-profit agencies to:

   - contract with other federal, state, county and non-profit organizations for the purpose of coordinating transportation providing specific client transportation, elimination of duplication on existing routes;
   - enter into purchase of service contracts to secure additional revenues to offset transportation costs by the districts;
   - ensure maximum use of vehicles;
   - assist and/or lead in the local coordination efforts in a joint effort with the administering agency of transportation funding;
   - obtain affordable insurance coverage through an insurance pool.

Benefits to Missouri

Development of a coordinated transportation system would improve the opportunities for a higher quality of life for all Missourians because it would:

1. Provide greater access to transportation for Medicaid-eligible recipients, including EPSDT eligibles, and other Missourians needing transportation assistance to access health services.

2. Create more local jobs in the transportation service industry.

3. Increase utilization of prevention and primary care health facilities and further impact local economies through such activity.

4. Provide more efficient services under all programs, by all programs, assisting in defraying overall operational costs.

5. Allow the state to leverage a greater amount of federal matching funds to support transportation funding.

6. Increase early diagnosis and treatment and prevention for those currently denied access due to lack of transportation. Public health efforts have repeatedly shown that prevention is much less costly than treatment of many diseases. Providing transportation to obtain preventive and early intervention health care services is more cost efficient than treatment of disease and will provide a significant savings to the State of Missouri and a savings in pain and distress to individuals.

TRANSPORTATION TASK FORCE MEMBERS

Larry Sims, Chair
MO Hwy & Transportation Dept.
PO Box 270
Jefferson City, MO 65102
816-751-7481

Rosanna Bradshaw
Council of Churches of Ozarks
PO Box 3947
Springfield, MO 65808
417-862-3586

Les Buschman
Independent Insurance Agents of MO
2701 Industrial Drive
Jefferson City, MO 65102
314-893-4301

Sue Caine
National Kidney Foundation
PO Box 43007
St. Louis, MO 63143
800-727-0240

Ron Cates
SE District Health Office
2875 James
Poplar Bluff, MO 63901
314-686-9720

Helen Clarkston
Division of Medical Services
PO Box 6500
Jefferson City, MO 65102
314-751-3277

Peter DeSimone
MO Assoc. for Social Welfare
308 East High Street
Jefferson City, MO 65101
314-634-2901

Melodie Friedebach
Dept. of Elem & Secondary Education
PO Box 480
Jefferson City, MO 65102
314-751-0185

Lynda Johnson
16 East 19th Street
PO Box 490
Higginsville, MO 64037
816-584-3658

Pat Jones
Missouri Easter Seals
5025 Northrup Ave.
St. Louis, MO 63110
314-664-5025

Mary Lee
Dunklin County Transit
Box 293
Malden, MO 63863
314-276-3716

Bonnie Lewis
Rolla Cerebral Palsy School
1815 Forum Drive
Rolla, MO 65401
314-364-7444

Joanne Mermelstein
UMC School of Social Work
709 Clark Hall
Columbia, MO 65211
314-882-6206

William Osborne
SMTS, Inc.
120 S. Mine La Motte
Fredericktown, MO 63645
314-783-5505

Sidney Schneider
Older Adult Community Action
8631 Delmar
St. Louis, MO 63124
314-993-2671

Randy Walton
Division of Aging, DSS Center
615 Howerton Court, Box 1337
Jefferson City, MO 65102-1337
314-751-3082

Gorden Warren
Community Reinvestment Act
PO Box 520
109 East Jefferson
Richland, MO 65556
314-765-3230

Linda Yaeger
OATS
100 East Texas Ave.
Columbia, MO 65202

Jayne Welles
American Cancer Society MO Div.
3322 American Ave.
Jefferson City, MO 65102
314-893-4800

APPENDIX D

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Affordable: Affordable health care has two components:

a. the individual's ability or lack of ability to pay for basic health services that may be a barrier to accessing health services, and
b. the level of state funding for health care services which should be a consensus developed as an organized statewide effort.

Clinical preventive services: activities and services that have a known impact on lowering the incidence of particular health problems and/or diseases. These services should be available to the general population and at the frequency recommended by recognized national groups. These services include, but are not limited to: periodic Pap smear and breast examination for women, periodic prostate examination for men, annual blood pressure checks, family planning, and prenatal and well child services.

Dental care: annual checks and dental services for children, such as cleaning and cavity treatment, plus referral services for prostodontic/endodontic care; dental services for adults, such as routine checks and services, plus referral services for specialized care; initial denture preparation and fitting, as well as denture adjustments required for oral health.

Emergency care: care by appropriately trained personnel (professional and paraprofessional) available within 30 minutes for acute illnesses and injuries that require services beyond routine medical office visits.

Environmental health screening: field sanitation, sewage treatment, rodent control, and other services related to ensuring a safe environment in rural areas.

Epidemiological screening appropriate to age: screening for diseases common to specific age groups to prevent development or progression of diseases including, but not limited to, scoliosis, vision and hearing problems, hypertension, cancers, and osteoporosis.

Health education: formal educational programs that meet specified objectives to address health problems of a designated population, including, but not limited to, prevention of substance abuse, sexually-transmitted diseases, and accidents.

Health promotion: programs which educate and assist individuals and groups to develop healthier habits, such as physical activity groups, food information (selection and preparation) programs for healthy choices, and positive reinforcement of activities that are healthy for the rural population.

Mental health evaluation: services that evaluate for the presence of mental illnesses including, but not limited to, depression, schizophrenia, dementia, Alzheimer, and other diseases, as well as referral to appropriate treatment sources.

Prenatal care: services available to women to diagnose pregnancy, provide regular health checks for normal pregnancy progress, provide nutritional and medical support to assist in normal maternal and fetal health and development, and provide referral to supportive services for problem pregnancies including, but not limited to, substance abuse services.

Primary, acute, and chronic care:

Primary care: a central core of health care services provided by an array of health professionals, including, but not limited to, physicians, nurse practitioners, physician assistants, and allied health professionals. Such care is focused on general skills, services, and attitudes that include disease prevention, diagnosis and treatment of common health problems and referral to appropriate specialty services when required, maintenance treatment of diseases, and activities to maintain the health of the community.

Acute care: health care provided for episodes of illnesses that are of sudden onset and short duration which require medical interventions.

Chronic care: health care provided to maintain the maximum level of functioning of persons who have health problems that require regular assessment and medical interventions to prevent worsening of the health problem.

Psychosocial rehabilitation: services which address problems related to mental health and substance abuse, including family support, as needed.

Missouri Department of Health
P.O. Box 570
Jefferson City, Missouri 65102-0570